



GOVERNMENT OFFICE  
FOR THE NORTH WEST



COUNTY COUNCIL



# Carlisle storms and associated flooding

Multi-agency debrief report

Issued on 14 July 2005

PREPARING FOR EMERGENCIES



IN THE NORTH WEST

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## **INTRODUCTION**

This report contains the outcomes of the multi-agency debrief into the emergency response to the storms and resulting flooding that affected Carlisle in January 2005. It is recognised that the January Storms affected most parts of Cumbria, resulting in storm and flood damage in many other areas. However, this report primarily addresses the situation in Carlisle as this was the most severely affected area and the focus of the multi-agency response.

This report does not describe in detail what the responding organisations and agencies did or the individual challenges they faced. However, it does provide a summary of the events that took place and how they were handled. The report examines the most and least successful aspects of the emergency response, and highlights potential areas of improvement to the response to future incidents. No assessment has been made as to whether these would have resulted in an enhanced response, and no judgement is being made on the response to the storms and resulting flooding.

This report does not cover the outcomes of the recovery phase that followed the handover of responsibility from Cumbria Police to Carlisle City Council. The recovery phase is still ongoing, and it would therefore be premature to carry out a recovery debrief at this time. The recovery phase will, however, be the subject of a separate debrief to be conducted in summer 2005 led by Carlisle City Council.

Members of the public have not been consulted during the production of this report and this is an area that responders may wish to consider as part of the recovery phase debrief process.

The recommendations in this report will be taken forward by the Cumbria Resilience Forum in liaison with regional and national organisations as necessary. Cumbria Resilience Forum, along with others across the country, will also be considering the implications of the Civil Contingencies Act that received Royal Assent in November 2004. This act will, in itself, require responder organisations to review and possibly amend their processes and procedures in responding to future incidents, and many of the recommendations made here will overlap with the requirements of the Act.

Whilst the production of the report has been co-ordinated by the Government Office North West Regional Resilience Team and some sections written by it, the recommendations contained within this report are those of the responders to the emergency and not necessarily endorsed by Government at this stage.

This report can be found on the UK Resilience website at [www.ukresilience.info](http://www.ukresilience.info). An executive summary of this report can be found on the UK Resilience website and on the Preparing for Emergencies website at <http://www.pfe.gov.uk>. The Regional Resilience Team can be contacted for further information on 0161 952 4135 or via e-mail at [rtr.gonw@gonw.gsi.gov.uk](mailto:rtr.gonw@gonw.gsi.gov.uk)

## **BACKGROUND**

### **Command and Control Arrangements**

The command and control arrangements adopted for this incident were the normal police led Gold, Silver, Bronze structure, the principles of which are explained below.

#### **Principles of Command and Control**

The management of the response to major emergencies will normally be undertaken at one or more of three ascending levels – Operational, Tactical and Strategic – that are defined by their differing functions rather than by specific rank, grade or status.

The terms ‘Bronze’, ‘Silver’ and ‘Gold’ (for ‘operational’, ‘tactical’ and ‘strategic’ respectively) are in common use in many organisations, particularly the emergency services

At the start of an incident the operational level will be activated first. Escalation or a greater awareness of the situation may require the implementation of a tactical level and, finally, a strategic level should this prove necessary.

In major incidents where there is an incident scene – or scenes – the police usually assume the role of overall co-ordination of all other organisations and agencies during the emergency response.

The response to the Carlisle storms and associated flooding led to the implementation of all three levels of command, and the terms Bronze, Silver and Gold were used by the organisations involved in the emergency response. These terms feature throughout the multi-agency debrief report.

During the emergency, Gold Command was situated at Cumbria Police Headquarters in Penrith. Silver Command was situated at the Emergency Planning Unit in Carlisle Castle. A number of Bronze commands were established during the flooding - these were at Warwick Road (East and West), Willowholme and for a time, at Denton Holme, and Warwick Bridge.

### **Carlisle - The location**

Carlisle is the principal conurbation in north Cumbria (Figure 1). The city is situated on the River Eden where two significant tributaries, the Caldew and the Patteril, both of which are prone to rapid flooding, join the main river. The city has been the site of flooding for many years although the substantial flood defences that have been constructed have, in the main, reduced its immediate effect upon the city. The flooding experienced in January 2005, however, resulted in water levels one metre above the 1822 flood mark (the previous highest flooding levels experienced in Carlisle).



Figure 1: Map of the North West of England showing the location of Carlisle

### The Build Up to the Storms

On Thursday 6<sup>th</sup> and Friday 7<sup>th</sup> January 2005, the Meteorological Office issued severe weather warnings as part of their normal daily weather forecast service. Initially they forecast mean average wind speeds of 45mph and maximum gusts of 60–80 mph, with heavy rainfall of 100mm in the following 3 days. A warning was subsequently issued at 1529 hours on 6<sup>th</sup> January indicating 120 mm in 24 hours with a 30% probability of 150mm. During discussions between the Meteorological Office and Environment Agency on the night of 6<sup>th</sup>/7<sup>th</sup> January, the Met Office also suggested that 200mm of rainfall over Honister was possible during the event. This level of rain across the central fells is not unusual. In addition, the Meteorological Office issued a very rare Emergency Flash warning on Friday afternoon warning of winds of 80-90 mph.

Flood watches for all catchments were issued by the Environment Agency at 1600 hours on Thursday 6<sup>th</sup> January. Flood Watch updates started to be issued to emergency responders and the media at 1100 hours on Friday 7<sup>th</sup> January, with the first Flood Warning issued (River Eden at Appleby) at 1310 hours on Friday 7<sup>th</sup> January.

In the event, over the evening of Friday 7<sup>th</sup> January, gales of 70 to 80 mph were common place with gusts recorded at 97 and 128mph at Great Dunn Fell. In

addition, over a 36 hour period, some parts of the Central Lake District received up to 225 mm of rain which fell on ground ready saturated by previous rainfall. In the River Eden catchment, up to 175mm of rain fell in this same 36 hour period. The Fire Service received calls for assistance due to flooding which primarily originated from the Kirkby Stephen, Appleby, Shap, Penrith, Keswick, Cockermouth, Longtown and Carlisle areas. A large proportion of the calls involved the rescue of people from flooded property.

The high winds and rain also affected other parts of the county, particularly in the Barrow in Furness area where structural damage to buildings was of noted significance.

The Cumbria County Council Emergency Control Centre was activated at approx 2330 hours on Friday 7<sup>th</sup> January to respond to any requests for Reception Centres to be activated due to flooding in other areas of the County.

### The Initial Impact

The following extracts, taken from the Search, Rescue and Evacuation debrief report, are used to set a time line and convey the general picture of the emergency situation to which all agencies were, at various stages and locations, responding over Friday night and into Saturday.

"The first reports of flooding in the Carlisle area were received from Cumwhinton at 2250 hours on 7<sup>th</sup> January. This was caused by a highway drainage problem. The first reports from within the confines of the city were received at 0020 hours on 8<sup>th</sup> January and involved the evacuation of 40 people from a club in Gilford Park where the access road was flooded at the underpass beneath the Main West Coast railway line. This was caused by a problem with highway drainage combined with some flooding from the adjacent River Petteril. The club itself was not affected. Almost simultaneously at 0024 hours, reports of flooding were received from Newmarket Road in Carlisle where the cellar at the Turf Inn had been inundated. The flooding of the cellar from groundwater sources is a regular occurrence during minor flooding incidents. Flooding directly from the River Eden did not occur at the Turf Inn until 0830 hours on Saturday 8<sup>th</sup> January. By 0230 hours requests for assistance were being received from the Caldewgate area of the city. Various reports were also received during the night from Harraby Green and Botcherby districts initially from the surface and groundwater flooding, and subsequently as the River Petteril burst its banks.

In Denton Holme flooding occurred from a number of sources. On the left bank, flooding began shortly before 0200 hours, and was caused by a tree obstructing the South Vale footbridge, on the River Caldew. On the right bank, the gasworks area began flooding from around 0200, due to a damaged wall, and subsequent overtopping of the defences.

Further downstream, below Victoria Bridge, CCTV and video evidence collected after the event shows that initial flooding on the right bank was from manholes surcharging. The left bank (Shadongate) was affected from approximately 0200 by flows from the Dow Beck culvert and sewer flooding.

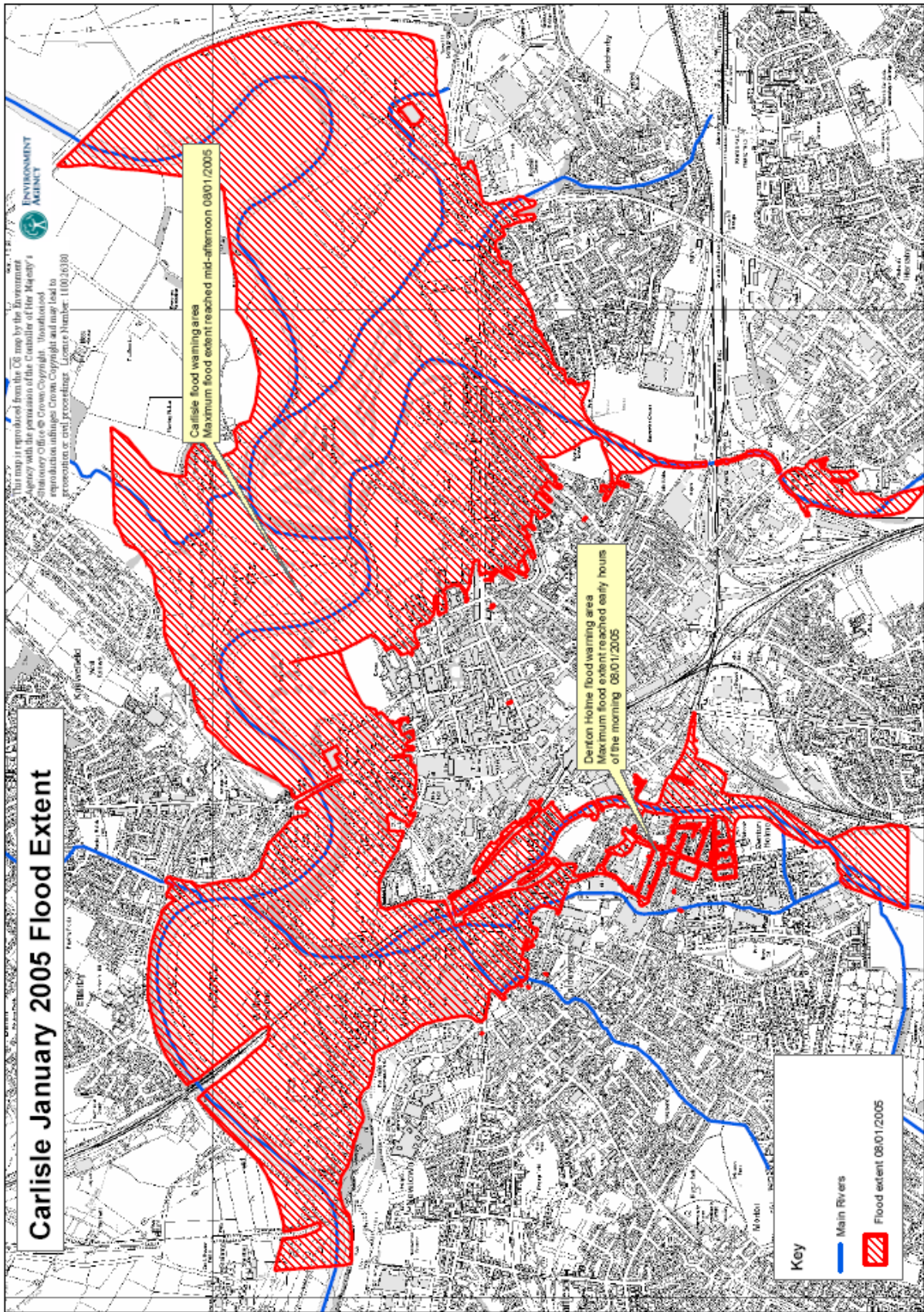


Figure 2: Extent of flooding within Carlisle City

Subsequently, from around 1100, both banks were inundated by water backing up from the River Eden.

Willowholme was affected by surface water and sewer surcharging from 2230 on 7<sup>th</sup> January. This was compounded by flooding from the Dow Beck and surface water, flowing from Caldewgate from about 0200. Flooding may also have occurred from the Little Caldew and Caldew, caused by flows backing up following obstruction of the railway bridge by trees and debris.

Again from around 1100 on 8<sup>th</sup> January, the area was inundated by flows backing up from the river Eden.

Flood warnings were issued for Cumbria, including parts of Carlisle, throughout the night. By 0502 hours, flood warnings had been issued for all flood warning areas in Carlisle.”

“At 0800 hours the Deputy Chief Constable invoked the Cumbria General Emergency Plan; Gold Command was established at Police Headquarters in Penrith and the Cumbria County Council Emergency Control Centre at Carlisle Castle was designated as Silver Command”.

“At 0830 hours, reports were received that the Civic Centre was being flooded and soon after the Magistrates Courts, Police and Fire Stations were also reported as flooding”.

“At the same time that the city's Municipal buildings were being enveloped within the flood, another area just outside the city at Warwick Bridge was also becoming critically affected, with a number of requests for rescues being received by Fire Control. Movement within and across the city was becoming more hazardous as many of the main routes became blocked. This led to some delay in providing an adequate response to those requests for assistance where in some cases the rescues were eventually achieved with the use of an Air Sea Rescue Helicopter”.

“By mid morning, the pattern of activities had been set for the next few days. These activities focused upon undertaking searches and rescues with Fire, Police, Mountain Rescue teams, the Coastguard, International Rescue Teams and members of the public. The main areas of activity by mid morning were concentrated in the Willowholme, Warwick Road and Warwick Bridge areas”.

“During the morning, the Willowholme sub-station became flooded, resulting in major power outages, not only within the city but all over the north of the county. Whilst the initial impact of this loss of power to a great extent went un-noticed by the crews operating in the open air, its effect on the infrastructure was dramatic, making homes and businesses well outside the initial flood zone uninhabitable. In particular, the loss of power to telecommunications systems soon threatened the fragile communications that were working including the police UHF network”.

## The Wider Implications

The following extracts from the Cumbria County Council debrief report summarise the wider implications of the flooding.

“[On the morning of Saturday 8<sup>th</sup> January 2005], the Cumbria County Council Reception Centre Emergency Plan was activated with a Reception Centre being set up at North Cumbria Technology College. Despite appalling travelling conditions, sufficient staff and volunteers were able to reach the Centre, which operated continuously until Friday 14<sup>th</sup> January. A second Reception Centre at Wigton Road Methodist Church was activated later in the day to accommodate evacuees from the west of the City and to assist the Cumberland Infirmary. A number of other Centres were opened spontaneously and the response of so many officers, volunteers, local firms and members of the public in supporting these Centres was exceptional.

Failure of the entire electricity supply to Carlisle around midday resulted in a desperate need to source generators. The County Council Emergency Control Centre is equipped with its own standby generator, which supplied the Centre with electricity for the entire period of power outage that lasted in most of Carlisle for approximately 36 hours. It cannot be stressed enough how critical the generator was to the emergency response within Carlisle, as the Centre’s roles continued to expand to include boat deployment centre and forward operational base for support agencies such as the Army, Coastguard, etc.

Cumbria Contract Services took the lead in the sourcing and deployment of generators to Reception Centres, Care Homes and other critical locations using generators from the Emergency Services, local hire firms, Emergency Planning Unit and their own stocks. They also resourced many other items such as hot food, consumables etc.

By mid afternoon, emergency operations in Carlisle were becoming even more difficult following failure of the mobile phone networks due to power supply failure. Emergency Planning Unit emergency mobile phones that were able to receive some network signals were deployed to critical locations such as the Reception Centre. The presence of an Orange Mobile Cell within the Control Centre at the Castle, which continued to operate throughout the emergency, was of considerable benefit.

Around 1800 on Saturday 8<sup>th</sup> January, a major telephone cable fault occurred in the vicinity of the Civic Centre, resulting in failure of all landline telephones in the north of the city. This meant that there was no ‘999’ emergency service available in North Carlisle and the County Plan for telephone failure was activated. This was achieved by placing Mountain Rescue Radio Operators in vehicles located at all public call boxes. A base station was established in the County Council Control Centre to receive emergency calls that could then be passed to the emergency services.

The County Council Emergency Control Centre was operational and staffed by representatives from most of the directorates from Saturday 8<sup>th</sup> until the handover to Carlisle City Council on Thursday 13<sup>th</sup> January. During this period, the Centre also housed representatives from many of the agencies dealing with the emergency, including United Utilities. It also functioned as a temporary Police Station and Fire Station. For approximately 1 month following handover, the Centre housed a group of officers from Carlisle City Council dealing with flood recovery.”

## The Longer-Term Response

By far the greatest concentration of flooding incidence in Cumbria occurred in the Carlisle area where approximately 6,000 residents from 3,500 homes were affected by the flooding (of which approximately 1934 properties were directly flooded) and 60,000 homes were cut off from electrical supplies. The flooding in some areas reached seven feet in depth and took four days to subside.

Over the rest of the weekend and into the following week all agencies concentrated on:

- Ensuring those who had opted to remain in their homes were safe
- Assisting from their homes people who now wished to leave because of the ongoing nature of the situation
- Carrying out a full house to house search to ensure there were no further casualties
- Getting food and other necessities to trapped or isolated members of the public and to reception centres
- In the case of the Police and Fire Service, consolidating their temporary locations, acquiring kit and salvaging items from their flooded stations
- Assisting in pumping away flood water to assist other agencies bring back power supplies, clear roads, restore communications etc so that the city could get back to normal as quickly as possible
- Consolidating command and control
- Reassuring the public by house to house visits involving Police and Fire Service.

Handover of command and control from Cumbria Constabulary to Carlisle City Council took place at 0820 hours on Thursday 13<sup>th</sup> January 2005.

During the immediate aftermath of the incident, a number of Ministerial and VIP visits occurred:

- Elliot Morley, Secretary of State, Department of Environment, Food and Rural Affairs – 9<sup>th</sup> and 31<sup>st</sup> January 2005
- Prince Charles – 14<sup>th</sup> January 2005
- Hazel Blears, Minister of State, Home Office – 27<sup>th</sup> January 2005
- Patricia Hewitt, Secretary of State, Department of Trade and Industry – 2<sup>nd</sup> February 2005.

## Incident Timeline

A summary of the timeline of the incident is at Annex 1.

## Organisations' Roles

The role that each organisation played during the emergency response to the Carlisle storms and associated flooding is detailed in Annex 2.

# THE MULTI-AGENCY DEBRIEF – THE APPROACH

## Aim

The overall aim of the debrief process was:

To identify the strengths and weaknesses of the emergency response to the 2005 Carlisle storms, and to identify actions required to enhance the response to any future incident in Cumbria.

The emergency response phase was defined to cover the time from when the emergency started on the evening of Friday 7<sup>th</sup> January 2005, until 0820 hours on Thursday 13<sup>th</sup> January 2005 when overall co-ordination was passed from Cumbria Constabulary to the Chief Executive of Carlisle City Council.

## Methodology

Due to the significant number of issues arising in the emergency and the large number of organisations and agencies involved in the response, it was decided to split the debrief process into three stages.

### **Stage 1**

In Stage 1, each organisation involved in the response was asked to carry out their own internal debrief process and produce their individual debrief report.

The following organisations submitted a debrief report:

Cumbria Constabulary  
Cumbria Fire and Rescue Service  
Cumbria Ambulance Service  
Carlisle City Council  
Cumbria County Council  
Environment Agency  
United Utilities  
North Cumbria Primary Care Trusts  
Health Protection Agency  
Maritime and Coastguard Agency  
MOD Search and Rescue  
Government Office for the North West  
Government News Network NW  
Highways Agency

Copies of these reports can be found in Annexes 3 to 15.

Some organisations chose not to submit an individual report, but instead fed their views in via the Stage 2 reports. These organisations include:

Army HQ 42 (NW) Brigade  
Lake District Search and Mountain Rescue Association  
Royal Naval Lifeboat Institution  
International Rescue

Womens Royal Voluntary Service  
Salvation Army  
British Red Cross  
Norman St School  
Allerdale District Council  
Churches Together in Cumbria  
Samaritans  
Carlisle Housing Association

## **Stage 2**

A series of seven functional debrief meetings were also held to consider specific aspects of the emergency response. There were:

Alerting  
Command and Control Structures – Gold and Silver Command  
Search, Rescue and Evacuation  
Public Warning and Public Information  
Media  
Reception Centres and Welfare  
Communications and IT

Copies of these reports can be found in Annexes 16 to 22

## **Stage 3**

A full multi-agency meeting was held on 18 March 2005 to which all responding organisations were invited. A list of attendees is shown at Annex 23.

During the meeting, the following questions were considered:

### *Question 1*

Identify the 3 elements of the emergency response that were least effective in your opinion

### *Question 2*

Identify the 3 elements of the emergency response that worked most effectively and efficiently in your opinion

### *Question 3*

What would you want any other organisation to do differently in the event of another incident in Cumbria requiring a multi-agency response?

### *Question 4*

The most significant thing I have learned is....

### *Question 5*

One key action I intend to take following this debrief is....

## The Multi-Agency Debrief Report

The information gathered in the multi-agency debrief meeting forms the basis for the remainder of this report, along with the key issues raised in the functional debrief reports. The individual and functional debrief reports should be read for more detailed information on the issues raised.

The issues have been gathered under a series of headings, reflecting the key areas that responders identified. These are:

- Pre-alert and alert stage
- Functioning of Gold and Silver command
- Responders
- Communications and information for decision makers
- Co-ordination of resources
- Public information / media
- Business continuity
- Planning, exercises and training

Each of these key areas will be described in more detail in the Chapters that follow.

## The Follow Up

The recommendations in the report (summarised in Annex 27) will be taken forward by the Cumbria Resilience Forum. This is the multi-agency emergency planning body for Cumbria and comprises representatives from all the key responder organisations. Support in delivering the recommendations will be provided by regional and national organisations where necessary.

## **PRE-ALERT AND ALERT STAGE**

### **Severe Weather and Flood Warnings**

Providing the earliest possible warning of the timing and scale of severe weather and flooding is essential to enable responders to activate emergency plans and put resources on standby.

Severe weather warnings were issued to responders to provide early warning of the storms. Alongside this, the Environment Agency issued a series of Flood Watches (which alert responders to put resources on standby) and Flood Warnings during the 6<sup>th</sup> to 8<sup>th</sup> January 2005. It is not practical in the early stages of an event such as this for the scale to be predicted. Flood Watch alerts are issued most winters for flood events which do not result in impacts on this scale. Perhaps as a consequence, the significance of these warnings was not fully recognised by all responders.

The existing flood defences performed well and remained structurally sound, but ultimately, they were overwhelmed by the high water levels. Equally, flooding occurred from the surface water drainage system and culverts that could not cope with the large volumes of water. Warning systems are limited to flooding from rivers.

Therefore, even if improved warnings had been provided, it would not have been possible to stop the flooding taking place, and pre-emptive evacuation of properties may have led to a greater risk to life (e.g. people on the streets when flood waters were rising).

Warnings of further severe weather and possible flooding were received in the days following the initial event, although no further flooding occurred in Carlisle.

### **Recommendations**

- Meteorological Office and Environment Agency to review information gathering and warning procedures to identify any possible areas for improvement to timeliness and accuracy of pre-incident warnings.
- Police to do risk assessment on receipt of any severe weather warnings and if required, consider setting up a small multi-agency group to evaluate potential consequences and assess various 'what if' scenarios (e.g. what would happen if the actual rainfall levels were twice those predicted, and how would that affect our response?).
- Environment Agency should review the existing flood protection measures and the design of the new proposed improvement scheme for Carlisle in the light of the flooding experienced.
- Local Authorities and United Utilities should review the existing drainage system in Carlisle to identify if improvements are possible.
- In line with Government strategy for flood risk management outlined in "Making Space for Water", the Environment Agency to work with partners to explore the feasibility of developing the current warning systems for rivers and coasts to urban drainage and sewers.

## Declaration of a Major Incident

Some responders (particularly the non-blue light services) felt that the processes surrounding the declaration of a “major incident” and subsequent information cascade could have been improved. Organisations would have preferred to be put on standby at an earlier stage, even if they were subsequently stood down. Whilst it was recognised that the threshold for declaring a “major incident” may be different for each organisation, the important point was that this decision was cascaded to all agencies so they could assess what response their organisation needed to make.

## **Recommendations**

- All organisations to have effective, robust, simple call-out procedures that are disseminated to all agencies and reviewed and updated on a regular basis.
- All organisations to be alerted as soon as possible once a “major incident” is declared so they can activate their plans (or as a minimum, go on standby) and alert any other agencies that may provide support.
- All organisations to proactively offer assistance if they had not been contacted for any reason.

## Warning and Informing the Public

Various systems were used to warn and inform the public in advance of, and during the early stages of, the flooding. These included the use of the Environment Agency Automatic Voice Messaging (AVM) service (to over 5000 properties at risk), the Floodline dial-up telephone service, the internet, the media, and more direct means such as loudhailers and knocking on doors. The vast majority of those registered for the AVM service were sent warnings before they were affected by the flooding. However, people in flood risk areas have to opt to receive the AVM service, and despite regular offers less than 50 per cent of those who were at risk had registered to receive direct flood warnings.

## **Recommendations**

- Environment Agency to consider how to promote wider uptake of the AVM service.
- Cumbria Resilience Forum to continue to maintain close working relationships with the media and ensure protocols for the dissemination of incident information are regularly updated.
- Cumbria Resilience Forum to consider alternative methods of disseminating information, particularly to those who are vulnerable (young, old, disabled, etc).

## FUNCTIONING OF GOLD AND SILVER COMMAND

### Relationships at Gold and Silver Command

Relationships between all responding organisations were very good, with full co-operation of all parties to the command and control structures that were put in place. Gold command performed very effectively in its role as a strategic decision-making body, with Silver command providing high quality tactical support. Some differences in organisational culture did become apparent (e.g. some organisations wanted to follow the emergency response plan, deviating from it only where absolutely necessary, whilst others adopted a more flexible approach to its use), but none of these differences in any way affected either the quality of the joint working or the ultimate response.

### **Recommendations**

- All organisations to continue to maintain the close and effective working arrangements that were clearly on display during the Carlisle incident.

### Membership of Gold and Silver Command

The organisations represented in Gold and Silver command were:

<b>Gold</b>	<b>Silver</b>
Cumbria Constabulary	Cumbria Constabulary
Cumbria Fire and Rescue Service	Cumbria Fire and Rescue Service
Cumbria Ambulance Service	Cumbria Ambulance Service
North Cumbria Primary Care Trusts	North Cumbria Primary Care Trusts
Health Protection Agency	Health Protection Agency
Cumbria County Council	Cumbria County Council
Carlisle City Council	Carlisle City Council
HQ 42 (NW) Brigade	HQ 42 (NW) Brigade
MOD Search and Rescue	MOD Search and Rescue
United Utilities	United Utilities
AmeyMouchel	AmeyMouchel
Government News Network NW	British Red Cross
Environment Agency	Maritime and Coastguard Agency
Government Office for the North West (Regional Resilience Team)	Office of the Deputy Prime Minister (New Dimensions Team)
Lake District Search and Mountain Rescue Association	

The majority of the representatives were well known to each other from attending meetings and exercises, and this aided working arrangements greatly, enabling fully effective multi-agency working to begin immediately on set up. It was recognised that with the advent of the Civil Contingencies Act, new responders (particularly the Category 2 responders, such as utilities) had been identified, and it was important to build the relationships with them in advance of another incident and to ensure they are familiar with the command structures within Gold and Silver. It was also recognised that some of these 'new' responders could have played a more

significant role in Carlisle if they had been involved earlier in the incident. Some organisations recognised they would have difficulty in providing full 24/7 cover in Gold command, and this was recognised, in some instances, as a barrier to developing a clear picture of what work was being progressed on the ground at any point in time. This did not, however, affect the initial stages of the emergency response where all organisations were dedicated to preserving life.

## **Recommendations**

- All organisations to continue to maintain the close and effective working relationships built up with 'traditional' responder organisations, but also to focus on building relationships with 'new' responders and ensuring they are familiar with the command structures within Gold and Silver.
- Cumbria Resilience Forum to review possible membership of Gold and Silver to ensure all relevant parties are invited to attend
- All organisations to review their internal resilience, including business continuity plans, to check they can provide 24/7 cover if required (particularly if the incident was to progress over an extended period).

## **Facilities and Location of Gold and Silver Command**

The loss of the Civic Centre due to flooding meant that the nearest Emergency Control Centre (located on the 1<sup>st</sup> floor of the Civic Centre) could not be activated as the County Plan required upon declaration of a major incident. Gold command was therefore established in the Police Headquarters in Penrith, with the Castle at Carlisle acting as Silver command. Both the Police HQ and the Castle performed well during the incident, providing all the facilities and accommodation required, despite the demands placed upon them. Issues were faced with the absence of a power supply to Silver, and with a temporary power cut at Gold on Sunday evening, but the back-up generators enabled normal service to continue.

## **Recommendations**

- Police to raise awareness of the most likely locations to be used for Gold and Silver commands, recognising the dynamic decision making process required when deciding on suitable sites in the event of an incident.
- Cumbria Resilience Forum to review business continuity plans for possible Gold and Silver command locations to ensure basic facilities (e.g. power) can continue to be provided during an incident.

# **RESPONDERS**

## **Understanding of Responding Organisations' Roles and Capabilities**

Whilst the blue light emergency services have worked with each other for many years, there are some organisations that have only recently become involved in responding to incidents. Lack of knowledge about the role and capabilities of these new organisations may mean they are not utilised to their full extent. It may have been possible for the Military role in Carlisle to have been increased if the time limitations on their activation had been more fully understood. Equally, organisations need to be flexible in their response and consider how they can provide support in situations that may be outside their normal response thresholds or in areas that may be outside of their day-to-day remit. For example, the Maritime and Coastguard Agency contributed to the search and rescue operation, even though they would not normally work inland.

### **Recommendations**

- Cumbria Resilience Forum to carry out an awareness raising process to improve understanding of all organisations, roles and capabilities.
- All organisations to think flexibly about how they can provide support in the event of an incident.

## **Capacity of Responders**

The commitment and dedication of all responders involved in handling the incident was outstanding, particularly as many of them were experiencing problems with flooding and power loss in their own homes (the need for welfare support for responders was identified and arrangements put in place). Trained and experienced staff worked flexibly to deliver whatever was required of them, although more staff would have, as ever, been helpful. The introduction of 'new' responders such as the Government Office for the North West Regional Resilience Team (GONW RRT) with their role in improving communications between the local level and Government, and the Office of the Deputy Prime Minister's New Dimensions Team with their High Volume Pumps, provided a significant boost to responders existing capabilities, and soon demonstrated their added value.

### **Recommendations**

- All organisations to ensure welfare support for responders can be activated quickly if required.
- All responders to think flexibly about the range of organisations that could provide support during an incident.

# **COMMUNICATIONS AND INFORMATION FOR DECISION MAKERS**

## **Resilience of Communication Infrastructure**

Communications between Gold and Silver command were not good, particularly during the early phase of the incident. This was exacerbated by the power outages and problems with mobile and landline telephones. As such, some messages did not pass from Gold to Silver (and vice versa) quickly or accurately.

Communications between emergency services on the ground were also hampered by the lack of a common radio system. This led to difficulties in Gold receiving an accurate up to the minute assessment of the situation on the ground (e.g. level of flood water, number of properties flooded, number of road closures, etc). However, activation of the Telephone Exchange Failure Plan in north Carlisle and its implementation by Lake District Search and Mountain Rescue Association, HQ 42 (NW) Brigade and MOD Search and Rescue worked well, providing a valuable '999' service for residents.

Thankfully in this instance, the communications difficulties did not lead to any adverse consequences. However, methods to improve communication channels both between responders and with the public, and contingency planning for communications failure, need to be further investigated for future incidents.

## **Recommendations**

- Cumbria Resilience Forum to ensure communications systems between Gold, Silver and Bronze commands and any back up plans are fit for purpose.
- Cumbria Resilience Forum to review communications infrastructure between Gold and Silver commands (including telecommunications and IT links) to ensure networks are resilient and common information sharing protocols are in place. The use of alternative providers of communications infrastructure (e.g. Maritime and Coastguard Agency, Armed Forces) should be considered, along with the further development of appropriate back up plans.

## **Communications within Gold and Silver**

As identified earlier, the working relationships between representatives within both Gold and Silver were very good. This was demonstrated by the effective and efficient communication systems that were established, both through formal meetings and informal 1-2-1 discussions. However it was acknowledged that there was scope for improvement to ensure that information was quickly and accurately shared with everyone who needed to know.

## **Recommendations**

- Cumbria Resilience Forum to ensure communication systems within Gold and Silver commands are fit for purpose.

## Information Provision

Earlier display of maps in Gold (hard copy and/or electronic, e.g. via a GIS system) would have been helpful in aiding organisations to visualise the extent and possible consequences of the flooding. The GIS system and maps available in Silver, used to inform the search and rescue operation in particular, clearly demonstrated their usefulness. The availability of information (location maps, photographs, etc) about organisations' critical infrastructure (e.g. the electricity sub-station at Willowholme) would also have been helpful in prioritising work programmes. The manner in which BBC Radio Cumbria gathered information about the current situation on the ground from reporters and members of public was recognised as an important information source that could potentially be tapped into more effectively by emergency responders.

## **Recommendations**

- Cumbria Resilience Forum to explore options for improving information provision into Gold and Silver commands for the response to future major incidents.
- All organisations to consider how access to their key information sources can be improved.

## **CO-ORDINATION OF RESOURCES**

### **Co-ordination of the Search and Rescue Operation and Reconciliation of Information with the Casualty Bureau**

The search and rescue operation covered around 3,500 houses with approximately 6,000 residents and was led by Cumbria Fire and Rescue Service, with support from many other organisations and members of the public. Whilst the support of the public was greatly appreciated, the difficulties of co-ordinating their activities and ensuring their health and safety were great.

People chose whether or not to leave their homes on the night of 7<sup>th</sup>/8<sup>th</sup> and the night of 8<sup>th</sup>/9<sup>th</sup>. Thus, for a variety of reasons (including immediate self evacuation, rescue by one of the agencies, rescue by individual members of the public, being away from their homes during the incident, e.g. on holiday), some were not present in the house at some time during the flooding. The people who left went to reception centres, to relatives, to stay with friends or to stay elsewhere. Despite the fact that records of those who were rescued were kept by some agencies, and those who turned up to established reception centres were logged in, there were members of the public who were rescued for whom no records existed. These comprised those rescued by the agencies, those rescued by members of the public and those who had self evacuated. For all these reasons, the reconciliation of the queries received by the Police at the Casualty Bureau and the establishment of whether or not that person was safe proved an extremely difficult task.

Tragically, during the search and rescue operation, it was discovered that two elderly ladies had died in properties on Warwick Road. The Police appointed a Senior Investigating Officer (SIO) to ensure that a proper and thorough investigation into the circumstances was conducted. Protecting vulnerable people during floods should be seen as a community issue as well as an issue for emergency responders.

A lack of clarity was noted around who is responsible for ordering and organising transport to take evacuated people from the “beaching points” to the reception centres. This should be addressed.

### **Recommendations**

- Police and Fire and Rescue Service should consider how records of evacuees and searched properties can be co-ordinated quickly and accurately.
- Local Authorities, Police, and the community itself need to improve methods for quickly identifying vulnerable people so that they can receive the support they need during an incident.
- Clarity required on funding responsibilities for the provision of evacuation transport.

### **Use of Reception Centres**

Numerous reception centres were opened or put on standby by the Local Authority in line with their Reception Centre Plan. However, many more were opened on an ad hoc basis by members of the public and community groups. There was a recognition that the Reception Centre Plan needed to be reviewed to provide co-ordination across all facilities.

The manual registration systems at the reception centres worked well, although the large numbers of people involved made responding to enquiries difficult.

## **Recommendations**

- Local Authorities should review their Reception Centre Plan to ensure overall co-ordination procedures are appropriate, that efficient checking in systems are in place and also consider how to support ad hoc reception centres set up by volunteers.
- Local Authorities to consider the computerisation of registration information to assist with dealing with enquires.

## **Offers of Assistance and Equipment**

Many offers of assistance and equipment were received from members of the public, private and voluntary organisations, and by other responders from outside the area. These could have been co-ordinated better to maximise their input. In addition, as mentioned above, local members of the public and community and voluntary organisations also self-activated themselves to provide valuable support by opening up rest centres and assisting in the search and rescue operation. This community spirit and wish to contribute support should be recognised and built upon.

## **Recommendations**

- Cumbria Resilience Forum should consider how to make best use of and manage local members of the public who choose to volunteer their services during an incident.
- Cumbria Resilience Forum should consider how to make best use of and manage offers of assistance and equipment from the public and other responder organisations from outside the Cumbria area (including within the North West region, and across other regions and devolved administrations as relevant). Specific attention should be given to the co-ordination of deployment of equipment and other assets, to ensure they are all tracked and can be returned to their rightful owner at the end of the incident.
- Cumbria Resilience Forum should review the training provision for larger voluntary organisations on command and control structures used during an incident to broaden their understanding and facilitate smoother working arrangements.

## **PUBLIC INFORMATION / MEDIA**

### **Use of the Media**

During the incident, BBC Radio Cumbria and CFM were used as one of the key methods to disseminate information to the public. They provided an excellent service to the community, turning over most of their airtime to providing vital public information. The willingness of responders, particularly the police, to put forward staff for media interviews was highlighted as a success. Recognition was made of the long term relationship and experience that had been developed between the media and responders over many years, and it was felt that this had paid dividends during the flooding.

### **Recommendations**

- Cumbria Resilience Forum to continue building on their relationships with the media, looking for opportunities to improve working protocols and to test these using joint exercising.
- All organisations to recognise that the media have an insatiable need for information, and can provide a valuable information source to the public if they are given regular advice bulletins and interviews to broadcast.

### **Media Resilience**

BBC Radio Cumbria managed to continue with their broadcasts despite the lack of power due to their back-up power supply. Border Television was off air for some of the time, CFM was off air for 5 hours, and it took the Evening News and Star time to print elsewhere. Overall the local media, as usual, did an excellent job but there clearly needs to be some sort of “Plan B” for dealing with power cuts.

### **Recommendations**

- Media to review their business continuity plans to ensure they can continue to provide a service to the public during a loss of essential services such as power.
- The media should, where applicable, apply (to United Utilities) for protected status under the Electricity Supply Emergency Code, but noting that this will generally only be available to customers who are supplied at high voltage. They should consider robust standby generators for critical activities.

### **Getting Information to the Public**

The lack of electricity meant that some people were unable to hear radio broadcast output as they did not have access to battery powered radios. Bearing in mind the Government advice for people to “Go in, Stay in, Tune in” during an emergency, more clearly needs to be done to ensure people can “Tune in” during a power cut. Other methods of disseminating information to the public were used such as the print media, the internet, telephone messaging systems, loudhailers, and door knocking. However many of these were also unusable due to the power cuts (e.g. digital cordless phones (DECT) and switch boards would not work). This is an area that could be explored further to identify additional information sources (e.g. use of on-street notice boards / billboards to provide public health information). There was a notable increase in the purchase of newspapers and the use of websites. During

the seven day period of the floods, the BBC Cumbria website had 3,247,116 “page impressions”. The Carlisle Evening News and Star website had 1.7 million hits on the week of the floods (it is normally around 200,000). Circulation of the News and Star’s flood special edition was 65,000 as people purchased multiple copies of the paper (normal daily circulation is 27,000). Also the official website [www.cumbriaalert.info](http://www.cumbriaalert.info) carried a large amount of public information.

## **Recommendations**

- Cumbria Resilience Forum to consider further information dissemination methods that could be used, particularly in the event of a power cut.
- Cumbria Resilience Forum and the media to review the capacity of their dissemination processes to ensure they can cope with the increased volumes of ‘traffic’ generated during a major incident.
- Government and other partners to consider reviewing their promotion of the “Go in, Stay in, Tune in” message to encourage the public to think about how they would tune in during the loss of essential services such as power.

### Co-ordination of Responder Organisations Press Officers

During the incident, all messages to the media were co-ordinated through the police in Gold command to ensure consistent messages were passed to the public. Co-operative working between an ad hoc group of press officers and police worked well largely due to the prevalent attitude which was to help the media in order to facilitate the public warning and information messages that had to be issued. Having more press officer resources able to dedicate their time to considering longer term ‘recovery’ issues and media monitoring would have been useful to pick up earlier on issues of concern to the public and local businesses. The need for a media liaison presence in Silver command to improve the flow of information was also noted. It was questioned whether media / press officers should actually be renamed ‘communication co-ordinators’ to more accurately reflect their role in public warning and information provision.

## **Recommendations**

- Cumbria Resilience Forum to consider the need for better mutual aid arrangements for press officers (including those outside the affected area / organisations) to provide additional capacity for media monitoring and planning for recovery issues.
- All responders to consider locating a media liaison representative(s) in Silver as well as Gold command.
- All responders to review the role of press / media officers and ensure their role is accurately reflected in emergency plans.

# **BUSINESS CONTINUITY**

[Note – Media resilience is covered earlier in the report]

## **Key Organisational Assets**

The early loss of some key pieces of critical infrastructure such as buildings (police and fire station, civic centre), power (Willowholme Sub-station) and communications (landline and mobile), both hampered the handling of the incident and increased the timescale to achieving 'business as normal' conditions. Organisations need to ensure they have identified and understand the vulnerability of their critical infrastructure to risks such as severe weather and its consequences (flooding, power loss, etc), and put plans and/or physical improvements in place to prevent or mitigate the effects.

## **Recommendations**

- All organisations to identify their critical infrastructure and ensure:
  - where possible, physical changes are made to improve the resilience of the assets themselves, and
  - business continuity plans are in place to allow services to continue (where possible) when assets are affected, recognising these services may need to be in a more reduced form than normal.

## **Organisational Staffing Plans**

In Carlisle, responders performed to the best of their abilities to both deal with the incident and maintain their normal services (albeit, in some cases, at a reduced level). However, improvements can always be made, and responder organisations need to use the learning from this incident to improve their staff planning for future incidents.

## **Recommendations**

- All organisations to review their business continuity plans with regard to staffing, to ensure key functions can continue to be delivered to the wider community during an incident.

## **Business Continuity of Care Homes and other Residences containing Vulnerable People**

There were a number of care homes in Carlisle that suffered from a loss of power. Generators were provided by responder organisations where possible, but questions were raised as to whether care homes and other locations housing vulnerable people should have back-up power as a matter of course.

## **Recommendations**

- Clarity required on the procedures for ensuring that vulnerable people in care homes are not put at risk as a result of power supply disruptions.

## **PLANNING, EXERCISES AND TRAINING**

Despite adverse weather playing a major part in many emergency situations each year in Cumbria, some responders felt more training on this scenario could have been carried out. This was flagged as a particular issue to be taken forward in the future if the current concerns around climate change and its impact on the weather remain. However, it was also recognised that the previous multi-agency planning, training and exercising, and relationship building had provided a strong base for what was overall a successful response. Questions were raised as to which organisations and how many people in those organisations were involved in the training and exercising, although it was noted, that there had been poor uptake from other agencies on exercises previously organised by the Local Authorities. In addition, it was felt many exercises focused on the ‘front end’ of incident handling, and more needed to be done on the handover to recovery and the recovery process itself.

### **Recommendations**

- Cumbria Resilience Forum to review their training and exercising programme to ensure that:
  - the frequency of severe weather exercises reflects past experience of the frequency of actual incidents (this should be assessed through the Community Risk Register processes required by the Civil Contingencies Act).
  - full multi-agency attendance is obtained (including from voluntary organisations), with all staff who could become involved in an incident receiving sufficient training to enable them to handle an incident confidently and effectively
  - all aspects of an incident are tested from the initial response, through to the recovery process.

## **CONCLUSIONS**

Carlisle was only one of a number of locations in Cumbria affected by the storms and resulting flooding, although it suffered the most severe impact and received the most media coverage. The demands placed on responders in coping with these multi-site incidents should not be underestimated, and the mutual aid provided by responding organisations from outside the Cumbria area were very welcome.

Overall, the multi-agency emergency response worked well, though the tragic loss of two lives as a result of the flooding was a cause of concern for all responders.

As with the debrief process for most incidents, there have been areas for improvement identified throughout this report. These include pre-incident warnings, communications, response co-ordination, provision of information to the public, business continuity, and planning, training and exercising. However, these recommendations have not been assessed and therefore it is not known whether their implementation would have resulted in an improved response. Furthermore, many of the recommendations suggest that existing systems are enhanced, rather than there being key gaps in provision.

These recommendations will be taken forward by the Cumbria Resilience Forum in liaison with regional and national organisations as necessary. Learning from this report will also be shared with responders outside of Cumbria so others can benefit from our experiences.

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**Annex 27** – Recommendations from the multi-agency debrief report – An action plan

## SEVERE WEATHER AT CARLISLE - JANUARY 2005

### SEQUENCE OF EVENTS

The following sequence of events has been reproduced from the Police Gold Command records.

#### Friday 7<sup>th</sup> January (pm) / Saturday 8<sup>th</sup> January 2005 (am)

- During the night of Friday 7<sup>th</sup> January and Saturday 8<sup>th</sup> January 2005, severe weather affected all parts of Cumbria.
- Serious flooding occurred at Appleby, Keswick, Cockermouth and Carlisle.
- Flooding also occurred on a lesser scale in many other locations.
- 24 large vehicles were blown over by strong winds affecting main arterial routes.
- An estimated half a million trees were blown down around the county.
- Electrical power was lost in a number of locations, mainly in rural areas.
- People were evacuated from their homes, including some from residential and community homes.
- Buildings suffering structural damage at Barrow in Furness.
- A wall collapsed onto a caravan at Hethersgill, killing a man who was inside.
- Police HQ was badly affected by flooding; the Firearms Training building and the Occupational Health Unit were both damaged.
- The main communications complex at Police HQ was surrounded by water and almost became flooded, which may have led to the loss of communications and I.T. systems.
- Flood warnings had been issued by the Environment Agency during the night.
- At 0700 the scale of the problem throughout the county was clear.
- Many communities had been affected, some badly.
- The situation at Carlisle was beginning to worsen due to the volume of surface water combined with overflow from drains and sewerage systems.
- Traffic was unable to travel through the city due to rising floodwater.
- The depth of floodwater already affecting properties throughout the city was increasing.
- Police officers in Carlisle who were already dealing with the problem began to have increasing difficulties.

#### Saturday 8<sup>th</sup> January 2005

##### **0800**

- Inspector Johnson, Communications Centre, contacted Mrs Twigg, Deputy Chief Constable, at her home address and informed her of the situation.
- Mrs Twigg invoked the County Emergency Plan and attended Police HQ to establish Gold Command and perform the role of Gold Commander.

##### **0805**

- Inspector Johnson informs Superintendent Turnbull at his home address and he attended Police HQ to perform the role of Silver Commander.
- The whole of the county had been affected by the severe weather.

- The most significant problem was at Carlisle and this was the priority of Gold Command.
- Acting Chief Inspector Denwood was recalled to duty and asked to perform the role of Bronze Commander at Carlisle.
- Chief Inspector Halliday and Chief Inspector Mackay were recalled to duty and asked to perform the roles of Bronze Commanders, Communications Centre and Contingency Planning respectively.

#### 0945

- Environment Agency representative attends Communications Centre to consult regarding the issue of a **Severe Flood Warning** with Superintendent Turnbull. The location affected was the Warwick Road area of Carlisle and the impact of the warning would be the immediate evacuation of approximately 3,500 homes. This was discussed with Donald Norrie, County Emergency Planning Officer and agreed.

#### 1015

- Gold Command Strategy:

***To minimise the risk of death and injury to members of the public and members of staff from the Emergency Services and responding organisations.***

***To maintain Cumbria Constabulary services to an optimum level.***

- A media strategy, led by Mike Head, was to be developed.
- A search and rescue plan by the Police and Fire Service commenced at either end of Warwick Road, working towards the centre of the affected area. RVP's were established at both ends of Warwick Road, including gathering and dispersal points for those who had been evacuated.
- Carlisle Police Station had been flooded and lost.
- Carlisle Fire Station had been flooded and lost.
- The Civic Centre had been flooded and lost.
- Silver Command was established at Carlisle Castle.
- A mobile police station was established in the city centre.
- Health Protection Agency and primary care trust staff joined Gold Command to provide health advice.
- The Cumberland Infirmary Carlisle major incident plan was not invoked. However, emergency transport arrangements, including boats, were used to get nurses and other staff to the hospital.
- Mobile phone systems were disrupted.
- Electrical power was lost throughout Carlisle.
- Communication links between Gold and Silver were badly affected.
- It became apparent that the initial flooding at Carlisle was due to a combination of surface water and overflow from drains and sewerage systems. This had been added to by the huge volume of water that had flowed down the River Eden from the higher reaches of the Eden Valley. The consequence was that the river came over the top of the flood banks.

#### 1140

- Gold Command Briefing:
  - Situation reports obtained from each agency

- Gold Strategy outlined
- Initial actions confirmed
- Priority was search and rescue

### 1215

- Gold Command Briefing:
  - Media advise public to relocate to first floor of their house or rendezvous at the Magpie Public House if possible, where people will be taken to the reception centre at Harraby School.
  - Contingency to be developed for people still trapped in their houses.
  - EA update – no change from previous briefing.
  - United Utilities – all electricity in Carlisle lost, will be sending a representative to Gold Command.

### 1300

- Gold Command briefing:
  - Two people had died in houses on Warwick Road
  - RAF helicopters available
  - Lake District Search and Mountain Rescue Association available
  - Implementation of plans to look after casualties and evacuees
  - Reception Centre established at Harraby School
  - United Utilities report estimated outage of electricity supply to Carlisle is up to 36 hours

### 1350

- Gold Command Briefing:
  - Cumbria Fire & Rescue with Cumbria Constabulary co-ordinate the search and rescue effort.
  - Merseyside Fire & Rescue and the Environment Agency deploy boats to the Warwick road area.
  - An RAF Helicopter is sweeping the area.

### 1430

- Gold Command Briefing:
  - Estimate of 48 hours before the situation will ease
  - Search & rescue operation continuing with the use of helicopters and boats, including HM Coastguard, RNLi and private individuals
  - Between 60,000 – 70,000 households in Carlisle now have no electricity
  - United Utilities confirm that Willowholme sub-station is severely flooded and it is impossible to gain access due to the depth of water. The sub-station provides the electricity supply for the whole of Carlisle.
  - Merseyside and Cheshire Fire & Rescue Services are sending maritime search and rescue teams to Carlisle

## 1600

- Gold Command Briefing:
  - The River Eden peaked at 1545 hours and was 1 metre higher than the 1968 flood
  - United Utilities cannot access the Willowholme sub-station. Access to the sub-station, it's repair and future protection are a priority
  - Surrounding Police Forces offer mutual aid
  - Three reception centres are opened by local communities
  - Road signs set up around Carlisle turning traffic away
  - Aerial photographs reveal the scale of the problem

## Late Afternoon

- Strategy for the care of vulnerable residents in place
- Residents of Care Homes and other residential homes should not be moved due to risks to their health
- UHF radio failing because transmitter batteries located on top of the Civic Centre are not recharging;
- Dealt with by staff transported by RAF helicopter
- Request made to 42 Brigade for a liaison officer to attend Gold Command to identify sources of temporary lighting, heating and communications

## Early Evening

- Fuel shortages in Carlisle due to lack of electricity

## 2000

- Gold Command Briefing:
  - Patrols requested to check road bridges for signs of damage by flood water
  - Requests to source food and drink suppliers, mobile generators and heaters

## 2330

- Gold Command Briefing:
  - Air Wave radio established by Comms. Centre and HQ Comms.
  - Mobile phone network has collapsed
  - Casualty Bureau/Help Desk require staff
  - Sourcing of food, water and sandbags is a priority

## Sunday 9<sup>th</sup> January 2005

## 0200

- Gold Command Briefing
  - Investigate possibility of pumping water off A69 at Warwick Bridge
  - Marconi have repaired the SMS signs on the M6, operation is dependant on electricity being restored.
  - United Utilities still cannot access Willowholme sub station
  - Review of search and rescue co-ordination and Casualty Bureau records

## **Early Morning**

- Sandbags requested from County and District Councils
- Local supermarkets offer to supply food & drink for residents, evacuees and emergency services
- MOD Search and Rescue will provide transportation
- Food and drink distribution points identified

## **0300**

- Gold Command Briefing:
  - The need to co-ordinate community reception centres to trace people was identified

## **0600**

- Gold Command Briefing:
  - Consideration given to using Greater Manchester Police regional casualty bureau support. Not pursued due to GMP requesting remuneration
  - The potential to use Ullswater Community College, Penrith, as a Reception Centre, should the need arise, was identified
  - Senior Investigation Officer (SIO) appointed to deal with the two deaths in Warwick Road and other emerging issues of criminality. [A third death did occur outside of the flood affected area due to the high winds. This is not covered in this report.]
  - Issues identified regarding refuse collection and hygiene.

## **0900**

- Gold Command Briefing:
  - Gold Strategy reviewed, updated and discussed
  - GONW now part of Gold Command
  - GONW co-ordinating the visit of Elliott Morley (Minister for Flooding) to Carlisle and Cumbria Constabulary H.Q.
  - Police and Fire Service checking potentially vulnerable residents identified by the Casualty Bureau

## **1045**

- Gold Command Briefing:
  - Health Advisory Group established to review the health risks and contingencies that will be required, including information and advice to the public

## **1300**

- Gold Command Briefing:
  - The River Eden level has dropped 4 metres
  - United Utilities cannot give any estimation of when electricity supplies will be re-connected

## **1530**

- Gold Command Briefing:
  - BT report a cable fault and the loss of land lines to 2,400 customers north of the River Eden in Carlisle
  - Telephone customers supplied by Cable operators are also affected

- The media strategy is working well
- A strategy to support business continuity on Monday morning is to be developed
- Mobile phone network has collapsed

### **1800**

- Gold Command Briefing:
  - LDSAMRA will staff 15 telephone kiosks north of the River Eden to assist any members of the public wishing to make 999 calls
  - One electricity sub station is restored; 17,000 people have power again
  - 30 out of 41 sewerage pumping stations are now operational again
  - Comprehensive media release regarding Monday morning school/work activities is issued
  - Main priority is restoring and protecting Willowholme electricity Sub Station

### **2000**

- Gold Command Briefing:
  - Continued monitoring of the countywide flooding situation
  - A further surge of water down the River Eden was possible on Monday, although not anticipated to be as high as the previous one

### **2030**

- Gold Command Briefing
  - Clarity sought regarding the availability of transport routes in the Carlisle area.

### **2230**

- Gold Command Briefing:
  - Increase in criminal activity to be monitored and dealt with

## Monday 10<sup>th</sup> January 2005

### **0200**

- Gold Command Briefing
  - Warwick Road impassable, Hardwick Circus is open
  - Partial rail service running between England and Scotland
  - Flood water is flowing back into the River Eden, the Environment Agency are monitoring the situation.
  - River levels across the county are generally peaking, current rainfall is forecast to decrease over the next two hours.

### **0500**

- Gold Command Briefing
  - No further significant rainfall is currently forecast
  - A69 Warwick Bridge still being pumped out
  - High volume pumping units to be deployed after consultation with the Environment Agency
  - All schools in Carlisle are closed
  - Access and protection of Willowholme electricity sub station is a priority.

## 0730

- Gold Command Briefing
  - Ambulance Service to check on Public Health issues created by flood debris on A69
  - River Eden at Appleby has still to peak, but is not expected to cause any flooding

## 0900

- Gold Command Briefing:
  - Police Search Co-ordinator appointed
  - 10,500 homes in Carlisle are still without power
  - Health Advisory Group issuing advice to the public
  - Access and protection of Willowholme sub-station remains a priority

## 1100

- Gold Command Briefing:
  - *Overarching strategic aim is 'Safe return to normality whilst safeguarding public confidence', linked to the existing Gold Strategy*
  - Occupational Health Units are established at Carlisle Castle for use by the emergency services
  - The public are advised to contact their insurers as soon as possible.

## 1400

- Gold Command Briefing:
  - United Utilities are continuing efforts to restore power to the city.
  - The search for vulnerable and missing people continues.
  - The bus service is running and is almost back to normal.
  - Trains are running normally.
  - Access to Willowholme electricity sub-station has been cleared of vehicles.
  - Partial restoration of the mobile phone network has been achieved.
  - BT and Cable Operators have not yet fully restored the disrupted service.
  - The Magistrates Court is now planning for medium and longer term recovery.
  - Medical services not running to normal capacity.
  - Gale force winds have been forecast to hit Western Scotland and North West England in the next 48 hours.
  - Staff Health & Safety issues are highlighted regarding the use of cans of petrol.

## 1700

- Gold Command Briefing:
  - Recovery Phase has become the focus
  - Telephone infrastructure is still not fully operational
  - Coastal flooding is predicted but will not affect Carlisle
  - Because of public sensitivity about flooding, appropriate media releases will be prepared and contingencies put in place at coastal locations that may be at risk.
  - The Press Office asked for reports of media or public hostility as a consequence of the flood

- 75% of commercial activity in Carlisle is back to normal.

## 2000

- Gold Command Briefing
  - Main elements of Gold Strategy remain the same, i.e.:
    - To safeguard the public from any immediate risk to life
    - To co-ordinate and provide an immediate response to the crisis
    - To plan and implement the recovery phase of the incident
  - Four pumps have been deployed at Willowholme substation

## 2100

- Gold Command Briefing
  - Casualty Bureau now closed for the day, Cumbria Constabulary Communication Centre will handle any further calls

Tuesday 11<sup>th</sup> January 2005

## 0000

- Gold Command Briefing
  - United Utilities report many premises are still without power:
    - North Lakes, including Carlisle: 4,589 properties
    - South Lakes, including Kendal: 1,858 properties
  - Further rainfall of 20-30mm is forecast but not expected to cause further flooding in Carlisle.
  - Restoration and operation of Willowholme electricity substation remains a priority.

## 0300

- Gold Command Briefing:
  - Locations to be identified for placement of Fire Service specialist pumps
  - Plans in place for decontamination and refuse collection
  - Warwick Road has been inspected and is structurally safe.

## 0600

- Gold Command Briefing:
  - A list of all the people and organisations who have made an outstanding contribution to the operation is to be drawn up
  - Health advice leaflets prepared

## 0900

- Gold Command Briefing:
  - Use of disinfectant considered by Health Advisory Group. Advice received suggests benefits of disinfecting outdoors are unclear but disinfecting indoors is seen to be beneficial. As a result the public will be encouraged to use it appropriately inside their homes as a health and safety precaution.
  - Royal Sun Alliance set up temporary claims office in Tesco car park, Rosehill
  - United Utilities mobile PR unit is now in the City Centre and open to the public
  - Handover becomes primary focus for Gold Command

## 1100

- Gold Command Briefing:
  - United Utilities issue press release regarding drinking water
  - Update from Senior Investigating Officer on the three deaths
  - Intelligence Cell in place
  - Systematic house to house searches still taking place

## 1230

- Strategic Planning meeting:
  - Meeting between Mrs Twigg, Superintendent Turnbull and Dr. Jason Gooding, Carlisle City Council, to discuss the handover process and agree a matrix of priorities linking Gold Strategy to the council's proposed business areas during the recovery phase.

## 1500

- Gold Command Briefing
  - Continued deployment of 2 pumps at Willowholme and 2 pumps at Hardwick Circus
  - United Utilities continue to make progress on power restoration with 60% of affect properties in Carlisle restored on Tuesday 11<sup>th</sup> January and full restoration on Wednesday 12<sup>th</sup> January.
  - Recovery handover

## Mid Afternoon

- Establishment of Local Authority Help Line

## 1640

- Strategic Planning meeting:
  - Meeting between Mrs Twigg, Mr Sunderland; Mrs Mooney and Dr. J. Gooding, Carlisle City Council, and Superintendent Turnbull, to discuss and agree handover process

## 1700

- Casualty Bureau closed

## 2000

- Gold Command Briefing
  - Main focus becomes the handover from acute phase to recovery phase
  - Fire & Rescue Service have crews stationed in Carlisle for normal duties.
  - Drinking water and sewage disposal are working normally
  - Between 500 and 600 properties in Carlisle remain without power.
  - Local Authority Help Line operating and receiving calls from the public.

## 2200

- Gold Command Briefing
  - Meteorological Office forecast a storm between 0000 hours and 0800 hours Wednesday 12<sup>th</sup> Jan, this is not expected to affect Carlisle.

## Wednesday 12<sup>th</sup> January 2005

### **0200**

- Gold Command Briefing
  - Focus is now on the handover to the Carlisle City Council and Cumbria County Council

### **0600**

- Gold Command Briefing
  - No further activities reported from Silver Command

### **0800**

- Carlisle City Council and Cumbria County Council meet at Carlisle to discuss the handover process

### **0900**

- Gold Command Briefing:
  - Logistics closed down
  - Outstanding vulnerable people enquiries submitted for policy decision
  - All calls from the public revert to the Comms Centre, with referral to appropriate Help lines where necessary
  - Priority is documentation of the operation to facilitate auditing, de briefing and effective handover to the local authority

### **1300**

- Gold Command Briefing:
  - Agreement to close down Gold Command during the afternoon and to stand down at 1700 hours

### **1700**

- Gold Command stood down

## Thursday 13<sup>th</sup> January 2005

### **0820**

- Handover agreement signed between Cumbria Constabulary and Carlisle City Council witnessed by Cumbria County Council and Cumbria Fire and Rescue Service.

## **ROLE OF ORGANISATIONS IN THE EMERGENCY RESPONSE PHASE**

### **CUMBRIA CONSTABULARY**

Cumbria Constabulary, a Category 1 responder, has the responsibility to co-ordinate the strategic roles of all the emergency services and other organisations involved in a major incident.

Although there are many duties, the Constabulary's prime function is to save life in conjunction with the other emergency services, and to protect property. In an incident such as flooding, three other functions are brought to the fore, the collation and dissemination of casualty information, the identification of deceased on behalf of the HM Coroner, and to assist in the restoration of normality at the earliest opportunity.

The widespread nature of the storm meant that Police resources were heavily committed from the late evening of Friday 7<sup>th</sup> January 2005, assisting residents with evacuation, checking vulnerable premises, dealing with a significant number of traffic incidents, and with other practical measures such as road closures. Our normal 'Friday night' business was still being undertaken in a number of places, with some arrests for disorderly behaviour being made.

With the unavailability of the Carlisle Civic Centre and Carlisle Police Station because of storm damage, the Police undertook to set up a Strategic (Gold) Command at Police Headquarters in Penrith, and through the good agencies of the County Council, staffed a Tactical (Silver) Command that had been set up at Carlisle Castle.

The loss of the Police Station was a serious blow, but public policing and reassurance was maintained by the deployment of mobile facilities to the city centre and to the Warwick Road area.

Our Tactical Support team undertook extensive work in conjunction with the Fire and Rescue Services and with many volunteers and other organisations to expedite the search of the most badly affected areas of Carlisle city and to rescue those at risk.

We were involved in the immediate aftermath, giving advice, with others, on home safety and security and our local policing teams are continuing to be an accessible and visible resource for the community.

For further information contact Chief Inspector Rod MacKay, Cumbria Constabulary at [roderick.mackay@cumbria.police.uk](mailto:roderick.mackay@cumbria.police.uk)

## **CUMBRIA FIRE & RESCUE SERVICE**

Cumbria Fire & Rescue Service, a Category 1 responder and a department of Cumbria County Council operates under the Fire & Rescue Services Act 2004, which defines the statutory duties to promote fire safety, save life from fire and traffic accidents and other specific emergencies such as floods. These latter emergencies are not yet defined or made statutory and provision for them is unfunded.

The severe storm conditions starting about 1800 hours on Friday 7<sup>th</sup> January placed enormous demand on the resources of Cumbria Fire & Rescue Service across the county over the next 3 days. Fire crews were deployed in advising householders trapped by rising waters, in search and rescue and evacuation of residents, particularly the elderly and vulnerable, to places of safety. Fire appliances were used to transport a large number of people to reception centres.

Merseyside and Cheshire Fire & Rescue Service's boat teams rendered vital assistance from Saturday 8<sup>th</sup> January until Monday 10<sup>th</sup> January, interfacing with Cumbria Fire & Rescue Service and the Police very effectively, taking over the search activities and rescue operations in the Warwick Road area and co-ordinating Non Governmental Organisation teams.

The flooding of Carlisle Fire Station early on Saturday morning caused considerable problems, however Carlisle Castle was used as a temporary Fire Station for 10 days without interruption to service delivery. Senior Brigade Managers were deployed at Gold Command, Silver Command and Service Control, Cockermouth, for 4 days, participating in the multi agency Command and Control at all levels. The assistance of 10 High Volume Pumping Units, provided by the ODPM from the Fire Service College was critical to a quick recovery and, crucially, the restoration of electrical power to the north of the county, as well as the City of Carlisle.

Involvement in the recovery process included a multi agency home safety initiative undertaken as residents returned to their homes, giving public reassurance in the whole range of home safety issues and this continues 3 months later.

For further information contact Bernard Dolan, Cumbria Fire and Rescue at [bernard.dolan@cumbriacc.gov.uk](mailto:bernard.dolan@cumbriacc.gov.uk)

## **CUMBRIA AMBULANCE SERVICE NHS TRUST**

Cumbria Ambulance Service NHS Trust provides pre-hospital care throughout the county of Cumbria. It is responsible for the emergency and non-emergency transport and treatment for the resident population of 492,000 and an additional 20 million annual visitors to the county over an area of 6824 square kilometres.

Cumbria Ambulance Service NHS Trust (the Trust) is a Category 1 responder under the Civil Contingencies Act 2004 and as such has a duty, in so far as to the population of Cumbria, to plan for any major incidents that may have a direct or indirect effect on them.

During the period of January 8<sup>th</sup>-12<sup>th</sup>, the Trust performed those roles normally attributed to the transport and treatment of those members of the public requiring

medical assistance. This was not restricted to the events within Carlisle but also in other areas affected by the weather throughout the county.

With specific reference to the Carlisle area:

- The Trust declared a major incident at 0945 hours on 8<sup>th</sup> January due to the increased difficulty in responding to calls from the general public and other emergency services primarily in the Carlisle area.
- The Trust initiated its Business Continuity and Major Incident Plans to effectively manage the incident from an ambulance perspective and:
  - Activated the British Red Cross and St John Ambulance Service to facilitate support at the North Cumbria Technology College (NCTC), Harraby;
  - Requested and received assistance from neighbouring Ambulance Trusts (including Air Ambulance Services) under cross-border mutual aid agreement;
  - Received offers of assistance from Ambulance Trusts nationally
  - Maintained its ability to respond to calls from the public requiring medical treatment;
  - Provided a 24-hour presence at the Castle, Carlisle (Silver) and at Carleton Hall, Penrith (Gold) to facilitate inter-agency liaison and incident command and control.
  - Participated fully within the Health Advisory Group to address the needs of the vulnerable and those displaced as a result of the incident.
- The Trust assisted the other emergency services with the evacuation of those members of the public affected by the floods;
- In addition to its normal role, the Trust supplied blankets and a generator to the NCTC to provide warmth and lighting for those members of the public that had been displaced from their homes.

Staff from all levels of the organisation – Headquarters, Ambulance Control and Operational Stations – throughout the county showed dedication and flexibility during the entire incident to ensure the continued ability by the Trust to respond to calls not only from the Carlisle area but to areas throughout the county.

For further information contact Grahame Gunning, Cumbria Ambulance Service at [grahame.gunning@nhs.net](mailto:grahame.gunning@nhs.net)

## **CARLISLE CITY COUNCIL**

Carlisle City Council's responsibilities, as a district council and a Category 1 responder, are defined within the County General Emergency Plan, which is a key element of the well-established emergency planning arrangements in Cumbria.

The council provides support for the emergency services, whilst maintaining core services. It is a lead player in the multi-agency arrangements to effectively manage an incident including the Gold and Silver Command Structure. Its services and facilities are deployed as appropriate to provide an effective response and to mitigate the effects of the emergency.

In normal circumstances the authority has specific responsibility for providing and administering an Emergency Control Centre (usually at the Civic Centre) but, as the Civic Centre was itself flooded, this was provided at The Castle.

The management of Reception Centres, Public Information facilities and Telephone Enquiry services also fall to the City Council and were extensively used in this incident.

Once the acute phase of an incident is over, the City Council leads on recovery and this huge task is still ongoing. Aspects of recovery including: - clean-up and waste collection; tackling damage to trees, civic properties and infrastructure; addressing a wide range of welfare needs; advice and support services; temporary housing of displaced residents and ensuring satisfactory refurbishment of properties.

The City Council is, with partner agencies and government, working on a vision for a renaissance of Carlisle to ensure that what is put back is better than before and that a stronger and more sustainable city emerges from this disaster.

For further information contact John Mallinson, Carlisle City Council at [johnm@carlisle.gov.uk](mailto:johnm@carlisle.gov.uk)

## **CUMBRIA COUNTY COUNCIL**

Cumbria County Council is a Category 1 Responder under the terms of the Civil Contingencies Act and through its Emergency Planning Team coordinates multi agency planning, training and exercising on behalf of Cumbria Resilience Forum. In an Emergency, the County Council has a wide range of functions which are laid down in the General Emergency Plan including, support to Emergency Services, care for vulnerable people, assistance at Reception Centres, media response, education issues, VIP visits, resource procurement etc.

The response of the County Council to the flood emergency was as follows:

- The County Council Emergency Control Room at the Emergency Planning Unit in Carlisle Castle was opened and staffed by Emergency Planning Officers from late evening 7<sup>th</sup> January and eventually performed the function of Silver Emergency Control, Temporary Fire and Police Stations, Emergency Services and other Rescue Agencies Rendezvous Points, and provision of rest and canteen facilities. The response of individual County Council Directorates was also coordinated from this Centre.
- Cumbria Fire and Rescue Service (a department of Cumbria County Council) in liaison with the Police coordinated the rescue of many members of the public from flooded properties and later with pumping out operations.
- Community, Economy and Environment Directorate through their Carlisle Area Manager and Team in liaison with the Chief Executive coordinated the overall response of the County Council.
- An Emergency Planning Officer represented the County Council at Gold Control at Police HQ, Penrith throughout the emergency.
- Many County Emergency Plans were activated including Reception Centres, Welfare, and Telephone System Failure, and County Council staff were deployed to assist with their implementation.

- A number of schools were used as Reception/ Feeding Centres including North Cumbria Technology College and Norman Street School, Carlisle. The Education Directorate coordinated the response to the impact of the flooding on education throughout the City.
- Cumbria Contract Services coordinated the provision of many resources including generators, plant, and feeding facilities.
- Support to vulnerable people was provided by Social Services Directorate.

For further information contact David Humphreys, Senior Emergency Planning Officer, Cumbria County Council at [david.humphreys@cumbriaepu.gov.uk](mailto:david.humphreys@cumbriaepu.gov.uk)

## **ENVIRONMENT AGENCY**

"We are the leading public body for protecting and improving the environment in England and Wales. It's our job to make sure that air, land and water are looked after by everyone in today's society, so that tomorrow's generations inherit a cleaner, healthier world."

Sir John Harman, Chairman.

The Environment Agency's Flood Defence function delivers a 24 hour service managing flood risk. The Government's policy aim for Flood and Coastal Defence in England and Wales is as follows:-

To reduce the risk to people and the developed and natural environment from flooding and coastal erosion by encouraging the provision of technically, environmentally and economically sound and sustainable defence measures.

During a major flooding event, the Agency's role as a Category 1 responder is to:

- Maintain and operate vital flood defences
- Ensure integrity of flood defences: Checks flood defences and undertakes essential repairs and maintenance as necessary, monitors and clears blockages of culverts, and secures breaches of defences.
- Issue flood forecasts and warnings: Disseminates flood warnings to the public and professional partners and continually monitors weather conditions, rainfall, and tidal and river levels to forecast where flooding may occur.
- Monitoring hydrological conditions: Monitors water levels and flows, assessing risk and advising the emergency services and local authorities.
- Supports the Emergency Services and Local Authorities: By local agreement, once it has ensured that its own systems and defences are secure, the Agency supports the Police and Local Authority by providing materials, equipment and man power, as far as its resources and other duties permit.
- Advise the police: The Agency advises the Police on the risk of a major civil emergency.
- Advises and informs emergency co-ordination centres: Supports the joint response by providing representatives to the various emergency control points (Silver and Gold)

During the January 2005 major floods in Cumbria the management of the Agency's roles were co-ordinated from the Incident Room at the North Area Office at Penrith. The Incident Room remained continually open and manned from the early hours of Friday 7<sup>th</sup> until Wednesday 12<sup>th</sup> January 2005.

The extreme weather conditions which led to the flooding across all of Cumbria, particularly over the period 7/8<sup>th</sup> January, caused unprecedented challenges for Agency staff and resources. Although the most serious flooding occurred in Carlisle, other communities such as Appleby, Kendal, Keswick, and Cockermouth also suffered the most severe flooding in living memory.

For further information contact Dave Clarke, Environment Agency at [dave.clarke@environment-agency.gov.uk](mailto:dave.clarke@environment-agency.gov.uk)

## **UNITED UTILITIES**

United Utilities is the regulatory licence-holder for key utility services in the North West. It is responsible for operating and maintaining the region's water supply, sewer and electricity distribution network, as well as treatment works and sub-stations. In simple terms, this means keeping the taps flowing, the toilets flushing and the lights shining for the seven million people in the North West.

As well as providing these essential services under "business as usual" conditions, the company has obligations under The Electricity Act 1989, The Utilities Act 2000, The Water Industry Act 1991 and The Water Act 2003 (and regulations derived from these acts) to adequately protect against and prepare for more exceptional circumstances. The company is also a Category 2 Responder under the Civil Contingencies Act 2004. This requires the company to cooperate and support Category 1 Responders (local authorities, police etc) at Local (County) and Regional level in emergency planning and incident response.

The storm which affected Cumbria in January 2005 was such an exceptional event. The company formally declared the event a major incident, initiating the emergency response plans it has in place to manage such issues.

These plans include the operational response – returning services, in this case mostly power supplies, to normal – and a customer service response.

The severity of the storm – in that its effects went beyond adversely impacting United Utilities' customers and assets – meant that the County Council activated its own emergency response plan. So, in addition to meeting obligations to its customers and regulators, the company was an active participant of the wider incident response structure.

For further information contact Jane Mills, United Utilities at [Jane.mills@uuplc.co.uk](mailto:Jane.mills@uuplc.co.uk)

## **NORTH CUMBRIA PRIMARY CARE TRUSTS**

Carlisle and District Primary Care Trust  
Eden Valley Primary Care Trust  
West Cumbria Primary Care Trust

The three North Cumbria Primary Care Trusts provide NHS services in the community and ensure that residents in North Cumbria have access to hospital and general practitioner services. The North Cumbria Primary Care Trusts have a duty, as Category 1 responders, to plan for, and respond to, major incidents.

During the weekend of 8<sup>th</sup>/9<sup>th</sup> January 2005 the North Cumbria Primary Care Trusts had a Director and Operational Manager based at Silver Command at Carlisle Castle.

Primary Care Trust managers ensured that appropriately qualified staff were available to attend Reception Centres. District Nurses ensured that vulnerable patients were not put at risk during the emergency, for example nurses organized generators for patients with electric beds. The primary care trusts also liaised with all residential and nursing homes to ensure that residents had access to the food, clothing and bedding they needed.

Primary care trust staff also worked to try to ensure that people using reception centres had access to any medicines that they needed.

For further information contact Dr Catherine Gregson, Director of Public Health, Carlisle and District Primary Care Trust at [catherine.gregson@ncumbria.nhs.uk](mailto:catherine.gregson@ncumbria.nhs.uk)

## **HEALTH PROTECTION AGENCY**

The Primary Care Trust and Health Protection Agency are Category 1 responders and responsibility together with Public Health Departments in Primary Care Trusts and Strategic Health Authorities for 'Protecting the Public Health'.

The Public Health function in a major incident involves advising the public and health professionals about threats to the public health as a result of the incident and actions to take to mitigate their effects.

The Public Health function also involves the timely provision of expert health advice to the strategic (Gold) control team and those involved in the incident. This information is to help inform the decision making process and any appropriate action to help minimise any adverse health effects and to keep the Department of Health and Health Protection Agency informed about the incident and its progress.

After consideration of the facts, a major public health incident was declared for health services at 1030 hours on 8<sup>th</sup> January and communication pathways were established. A team was deployed to Gold Control and a presence at Gold Control was maintained until responsibility of the incident was passed to the recovery group.

In the Carlisle incident, the Health Protection / Public Health action was to:

- Co-ordinate use of health resources and assist, together with our colleagues in the ambulance service, the strategic management of the health aspects of the flooding. We assisted in prioritising services and resources to the vulnerable and those in need that were affected by flooding or loss of power or essential communication equipment.
- Assist in the decisions that would have an impact on public health or to mitigate adverse effects on public health, particularly advising on the health impacts of flooding.
- Work closely with media representatives to give accurate authoritative advice on the health risks associated with this incident and their mitigation to the public, and kept professional colleagues briefed on potential problems and demand for additional services.
- Provide advice to the general public regarding the anticipated possible health impacts of this incident and reacted to public concerns.
- Set up ad hoc meetings of the Joint Health Advisory Group to consider specific health issues but did not establish a standing committee with regular meetings.
- Fully participate as part of the strategic multi-disciplinary Gold Control team to provide strategic management and leadership to tactical and operational elements throughout the acute phase of this incident.

For further information contact Dr Astbury, Health Protection Agency at [john.astbury@hrvpct.nhs.uk](mailto:john.astbury@hrvpct.nhs.uk)

## **MARITIME AND COASTGUARD AGENCY**

The Maritime & Coastguard Agency is an executive agency of the Department for Transport and is responsible throughout the UK for implementing the Government's maritime safety policy. That includes co-ordinating search and rescue at sea through Her Majesty's Coastguard, and checking that ships meet UK and international safety rules. We work to prevent the loss of lives at the coast and at sea, to ensure that ships are safe, and to prevent coastal pollution. MCA is a Category 1 responder under the Civil Contingency Act 2004.

Our role during the Carlisle storms was to assist our emergency service colleagues, the local authority and the local community by the recovery and transportation of stranded persons to places of safety, ensuring the welfare of those choosing not to leave their homes and by supporting the communications infrastructure through the use of Marine band VHF radio.

For further information please contact Davy Thompson, Maritime and Coastguard Agency at [davy.thompson@mcga.gov.uk](mailto:davy.thompson@mcga.gov.uk)

## **ARMED FORCES- HQ 42 (NORTH WEST) BRIGADE**

HQ 42 (North West) Brigade is the regional military headquarters responsible for tri-Service planning and co-ordination of UK Operations in the North West of England. UK Operations include Military Aid to the Civil Community (MACC), which is the provision of unarmed military assistance to the civil authorities when they have an urgent need for help to deal with a natural disaster or a major incident.

Under Civil Contingency Act guidance, it is stated that the Armed Forces may be able to assist the authorities in times of need. However it is made clear that the Armed Forces maintain no standing forces for MACC tasks. Rather assistance is provided on an availability basis and no commitment can be made that guarantees support to meet specific emergencies.

During the Cumbria Storm, military support to the civil authorities commenced with the deployment of MOD Search and Rescue helicopters which were tasked by the Aeronautical Rescue Co-ordination Centre at Kinloss. Following a formal request for MACC (Category A) from the Civil Authority in Cumbria to the Joint Regional Liaison Officer at Preston, Military Liaison Officers were deployed to Gold and Silver Commands at Penrith and Carlisle Castle respectively. Subsequently, RAF and Royal Signals personnel were deployed to Carlisle to assist in a series of MACC tasks.

Overall MACC support to the Cumbria Storm was co-ordinated by the Operations Room at HQ 42 (North West) Brigade at Preston, working closely with HQ 2<sup>nd</sup> Division at Edinburgh, the RAF Regional Liaison Officer for the North and RAF Spadeadam. Specific tasks conducted by the military included Search and Rescue, the delivery of essential supplies to Reception Centres and Rest Homes, warning and informing the public of health hazards and the establishment of an alternative communications network for the public to contact the emergency services. Logistic assistance included the provision of sandbags and the accommodation and feeding of emergency service personnel using Territorial Army and Army Cadet Force infrastructure support at Carlisle Castle.

For further information contact Ray Carolin, 42 (NW) Brigade at [42BDEG2GM@land.mod.uk](mailto:42BDEG2GM@land.mod.uk)

### **LAKE DISTRICT SEARCH AND MOUNTAIN RESCUE ASSOCIATION**

Mountain Rescue in the whole of the United Kingdom is free of charge both to the person rescued and to any organisation to which they may belong. The co-ordination of search and rescue in the UK is undertaken by the Police and (latterly) the Fire & Rescue Service.

Over the years, a network of voluntary mountain rescue teams has been established on a local basis where the need existed. The voluntary rescue teams in England and Wales are all autonomous bodies composed of unpaid volunteers who are called out when their services are required. Teams are called out at any time of day in all weathers. Team members train in order to be able to operate in a variety of situations and conditions – usually including water rescue.

During the last few years, there has been a considerable increase in the number of requests by the police to mountain rescue teams for search and rescue in non-mountain and open country environments. The teams, maintaining their ethos of serving the community and saving lives in wild and remote places, have willingly responded to these incidents as well as the incidents in the mountains, fells and moorland.

The local teams are members of regional organisations. In Cumbria, the Lake District Search Mountain Rescue Association (LDSAMRA) co-ordinates the work of the 12 teams in the county, and liaises with the police forces serving their area, the RAF Mountain rescue teams and the RAF and RN helicopter units.

During 2004, Teams in Cumbria were called out to 366 incidents – of which 49 were non mountain.

Our role during the Cumbria floods was to:

- Assist emergency services with the evacuation of residents in the Warwick Road area. Rigid inflatable boat used.
- Use team vehicles to distribute blankets and bring in diesel fuel from depot for other rescue vehicles being used in town centre.
- Use MR radios to assist several other rescue services as their communication links were out of action.
- Man an emergency communications network to cover for the 999 service in the North of the City - where public telephone boxes were rendered unusable because of lack of power.
- Attend Gold Command from the morning of Saturday 8<sup>th</sup> until Tuesday 11<sup>th</sup> January.

For further information contact Ged Feeney, Mountain Search and Rescue at [ged@gfeeney.demon.co.uk](mailto:ged@gfeeney.demon.co.uk)

**GOVERNMENT OFFICE FOR THE NORTH WEST – REGIONAL RESILIENCE TEAM**

Government Office for the North West represents and undertakes work for ten central government departments. It also has links with the rest of Whitehall.

The primary role of Government Office for the North West Regional Resilience Team (GONW RRT) during an incident is to ensure effective communication between the national and local level (in carrying out this role it may be appropriate for GONW to place a liaison officer within Gold Command). In exceptional circumstances, GONW RRT may also facilitate preparation for, and implementation of a regional response through the Regional Civil Contingencies Committee (RCCC). The Government Office also has a major role to play in supporting Local Authorities and others during the recovery phase.

Due to the severity of the storms that affected Carlisle and large areas of Cumbria, GONW RRT made contact with Gold command and other partners (United Utilities and Local Authorities) on the morning of Saturday 8 January and briefed officials at the Cabinet Office and the Office of the Deputy Prime Minister on the developing situation.

GONW RRT had a continued presence in Gold command, which was located at Cumbria Police HQs, from Sunday 9 January to Thursday 13 January when the formal handover to Carlisle City Council took place.

Throughout this period, GONW RRT provided briefing for Ministerial and VIP visits, daily cross-departmental reports including lines to take, and individual reports to departments on specific issues.

GONW also commenced dialogue on recovery from the outset, establishing contact with the Chief Executives from Carlisle City Council and Cumbria County Council on Sunday 9th January, with a formal meeting taking place on Monday 10th January. A small team of GONW staff was established in the city to work with local partners in the immediate aftermath of the storms. GONW remains actively involved in the recovery process, it is a core member of the Flood Recovery Management Team and has deployed specialists from across the office and from government departments to work in specific areas of recovery including housing and business.

GONW RRT has also co-ordinated the Carlisle multi-agency debrief process.

For further information contact Julie Dawber, GONW Regional Resilience Team at [rrt.gonw@gonw.gsi.gov.uk](mailto:rrt.gonw@gonw.gsi.gov.uk)

### **GOVERNMENT NEWS NETWORK (GNN) NORTH WEST**

Government News Network North West is the Government's regional press office based in Manchester. It covers the five North West counties of Cumbria, Lancashire, Greater Manchester, Merseyside and Cheshire, along with the High Peak District of Derbyshire.

As well as representing many Government departments, GNN also provides press officer help during major emergencies. It was for this reason a press officer went to Cumbria Constabulary headquarters to help deal with the huge volume of media inquiries.

Most of one day was taken up with organising and publicising the visit to Carlisle by Department of Environment, Food and Rural Affairs Secretary of State, Elliot Morley. GNN accompanied him to the flooded area and oversaw media interviews.

GNN stayed at the police press office for another day and a half answering media inquiries but left when they reduced to manageable levels. GNN also kept key Government press offices, including the Office of the Deputy Prime Minister and DEFRA, informed of developments

For further information contact Nigel Ellis, Government News Network at [Nigel.Ellis@gnn.gsi.gov.uk](mailto:Nigel.Ellis@gnn.gsi.gov.uk)

## **HIGHWAYS AGENCY**

The Highways Agency has responsibility for managing and maintaining all motorways and trunk roads in England. AmeyMouchel are the agents for the Highways Agency for this particular area. The Highways Agency is a Category 2 responder under the Civil Contingencies Act 2004.

The main problems facing us on the night of 7<sup>th</sup>/8<sup>th</sup> January were in relation to storm damage across our road network. In particular, in excess of fifty trees were blown down and were blocking or partly blocking roads including the A66, A595 and A590. Twenty three heavy goods vehicles were blown over on the A74 and M6.

The A66 at Temple Sowerby was closed for almost two hours during the early hours of 8<sup>th</sup> January when the River Eden overflowed onto the road. The river level dropped by approximately 0600 hours and the road was re-opened. There was some minor flooding on various parts of the A595 in the West of Cumbria but the road remained open.

Teams were deployed to clear fallen trees and much of our effort was directed to making safe the A74/M6 in relation to the blown over lorries. We also assisted the Police in providing signs at the main entrances to Carlisle.

When Gold Command was established, a representative of our Agents attended and represented the Agency. As the day progressed and the extent of the flooding in Carlisle became apparent, we assisted by providing generators, space heaters and lighting units. We also provided mobile message signs to give information to drivers entering Carlisle and on the M6.

For further information contact Paul Turner, Highways Agency at [paul.turner@highways.gsi.gov.uk](mailto:paul.turner@highways.gsi.gov.uk)

## **ORGANISATIONAL DEBRIEF – CUMBRIA CONSTABULARY**

For further information contact Superintendent Ted Thwaites, Cumbria Constabulary at [ted.thwaites@cumbria.police.uk](mailto:ted.thwaites@cumbria.police.uk)

The debrief took place in March 2005, allowing an extended opportunity for reflection on the issues felt at the time. It followed a period of intensive information gathering from officers, staff and partner agencies, during which comments were received from over 75 individual police officers and police staff members. It was attended by representatives of each phase of the police contribution to the agency response. This document summarises the key learning points from the debrief.

### Summary

The overwhelming response from the public and from partners has been complimentary about the individual and collective contribution made by members of Cumbria Constabulary.

Among the many positives from that weekend were:

- Individual acts of heroism – these have already been the subject of formal recognition by the Chief Constable and others.
- Many officers and staff volunteered their services and worked unstintingly and for long hours to assist the people of Cumbria during that difficult weekend.
- Despite the short-term building works in Police HQ and the catastrophic closure of Carlisle Police station, we rapidly opened and managed effective command suites.
- The continuity and development of control of the incident through Police command was evident throughout.
- We can be proud of our people and their work.

However in any operation, there are opportunities to learn from our actions and we have distilled the following key learning points, to improve our response in the future:

- We will build on our processes for reviewing and evaluating the intelligence supplied by external bodies.
- We will review the options for providing an IT based Casualty Bureau system.
- We will review the staffing support for those who command major incidents, to ensure the availability of trained staff in each role.
- We will bring forward a review of the alerting cascades for staff.
- We will review our relationship with the armed services to ensure that we have a regularly updated view of their capacity to assist.
- We will review the availability of trained police search coordinators, to ensure that one is deployed at the outset.

## ORGANISATIONAL DEBRIEF – CUMBRIA FIRE AND RESCUE SERVICE

### Summary

The major storms that occurred in Cumbria during the night of 7/8 January created flooding and damage on a scale not previously recorded. Whilst the most significant effects were witnessed in the City of Carlisle, the impact of the storm affected all the communities of Cumbria.

The storm challenged the capability of Cumbria Fire & Rescue Service, initially in response to isolated yet very intensive incidents such as the flooding in Appleby, and later in the night, on a much wider scale in Carlisle. Despite the loss of the fire station, power outages, health threats and major disruption to the whole infrastructure of the City, an extended and co-ordinated response to the major flooding was sustained throughout.

With the exception of a number of limited failings, the Service was able to:-

- Accept and action all emergency requests for assistance.
- Mobilise resources to reported incidents or alert other appropriate agencies which were better placed to respond.
- Coordinate the activities of a number of significant incidents of varying descriptions across the County simultaneously.
- Rescue or evacuate large numbers of flood victims to places of safety.
- Assist in the coordination of reception centres.
- Relocate the Service's resource centre in Carlisle from the fire station to temporary accommodation at Carlisle Castle.
- Co-ordinate the systematic search of 3500 premises within the city's flood zone.
- Support all staff (some themselves flood victims) throughout the emergency.
- Contribute to the Gold and Silver Command structures effort to coordinate relief, sustain and promote business continuity.
- Co-ordinate the deployment of other Fire & Rescue Service Units and support their welfare needs.
- Co-ordinate and supervise the inaugural deployment of high volume pumping units.
- Undertake home safety visits in the Carlisle flood zone, providing reassurance and assistance to victims when returning to their devastated homes.

Against this backdrop of activity, the Service will be able to develop and improve any future responses to similar incidents by:-

- Improving the resilience of its communications systems.
- Identifying and providing improved personal protective clothing for deployment in similar circumstances.
- Investigating and implementing better coordinated search and rescue procedures.

Generally speaking, it is accepted that the events of 7<sup>th</sup>-13<sup>th</sup> January were handled well by all concerned. Cumbria Fire & Rescue Service was no exception to this general rule. The Service will undoubtedly benefit from its successes and improving, where necessary, on its few failures.

The rest of this report provides a backdrop to the events and a more detailed analysis of the positive and negative aspects of the Service's responses.

## Introduction

This report confines its observations to the emergency response period defined as 1800 hours on the 7<sup>th</sup> January 2005 through until 0800 hours on 13<sup>th</sup> January 2005. The report also restricts its observations and recommendations to those pertinent to the Fire & Rescue organisation.

This report has been compiled from the observations of firefighters and their managers, collated through a routine yet comprehensive series of debriefs both within the Service and beyond. The main debriefs from which this report has been drawn were:-

- Gold and Silver Command debrief hosted by Cumbria Constabulary
- Search and Rescue debrief hosted by Cumbria Fire & Rescue Service
- Communications and IT debrief hosted by Cumbria Constabulary
- Cumbria County Council Services debrief hosted by Emergency Planning Unit

In addition, a comprehensive and routine series of debriefs has been undertaken within the Service involving all members of staff who were directly or indirectly involved.

The timing of events has been reconstructed using the Fire Control Incident Log. These may not entirely have been aligned with other agencies' observations and incident logs.

## Gold Command

Gold Command was established by the Deputy Chief Constable when she invoked the County Emergency Plan at 0800 hours on Saturday 8<sup>th</sup> January. It was decided to base the command at Police Headquarters near Penrith even though the Gold Command facilities were not complete at the time. Representatives of all the major agencies involved in the response and the recovery phases were accommodated at the Command.

One of the first tasks undertaken by the Gold Commander was to establish a strategy to 'minimise the risk of death and injury to members of the public and members of staff from the emergency services and responding organisations'.

At 1000 hours it was agreed with the Environment Agency to issue a severe flood warning for the Warwick Road area of Carlisle, this warning introduced the potential for evacuating 3,500 homes with an estimated population of approximately 6,000 people.

The primary strategic role of the command was to facilitate the return to normality after the initial response. In order to progress this, a Flood Management Recovery Team was created consisting of Regional, County and District Officers all of whom had responsibility for Recovery Groups that were charged with developing strategies and action plans in key areas. The handover of responsibility for the recovery stage took place at 0820 hours on the 13<sup>th</sup> January and Gold, Silver and Bronze Commands were then disbanded.

Cumbria Fire & Rescue Service was represented at the Command by the Director of Public Protection/Chief Fire Officer. He was supported by an Area Manager and two Group Managers.

### **Positive Aspects**

- Liaison between Gold and Silver Command was good. Information was passed into Silver Command via Fire Control from the various Bronze Commands.
- Working relationships between Fire & Rescue Personnel and other Gold Command personnel were always constructive allowing for good communications and multi tasking beyond the strict confines of the Service's references.
- By ensuring that it was the same Fire & Rescue Service personnel deployed within the Gold Command throughout the incident, good continuity was established which in turn maintained the momentum established to achieve the Gold Command objectives within the set timescales.

### **Negative Aspects**

- The decision to establish Gold Command at Penrith meant that during the initial stages of set up, accommodation had to be commandeered from police administrative support staff. This temporary accommodation meant that there was no access to IT equipment, which would have proved invaluable. This deficiency was later partially rectified when the purpose built Gold Command office suite was hurriedly completed; however links with external IT networks never became available.
- The temporary nature of the Gold Command meant that there were no facilities for logging events on a common command and control system thereby providing an invaluable audit of actions and instructions. In particular, remote access to the Service's command and control system would have provided a good insight into the Service's activities during the incident.

### **Silver Command**

The nucleus of a Silver Command was established at the County's Emergency Planning Unit during the early hours of Saturday morning when the Emergency Planning Officer was joined by a Fire & Rescue Service Group Manager initially to co-ordinate the opening of Reception Centres for the victims of the flooding. A fully fledged Silver Command was operating soon after the implementation of the County Council Emergency Plan at 0800 hours. In addition, the army also moved onto site and later the out of county responding Fire & Rescue Services also found accommodation at the castle.

After the initial setting up of the command an Area Manager was nominated to represent the Service. His core responsibilities were to:-

- Establish and maintain liaison with colleagues at Gold Command, the Fire & Rescue Control Room and the individual Bronze Commands.
- Review and balance competing priorities as identified by Fire Control, Gold and Bronze Commands.
- Support and supervise the activities at the Bronze Commands

### **Positive Aspects**

Fire & Rescue Service personnel at Silver Command initiated and maintained good communications and liaison with Fire & Rescue personnel at Gold Command and at the various Bronze Commands. As in Gold Command, the principle of deploying the same personnel throughout the incident to Silver enhanced continuity and provided the other Silver Command personnel with the opportunity to develop good working relationships.

### **Negative Aspects**

Accommodation at the Emergency Planning Unit was cramped and lacked sufficient access to IT systems to allow good auditing of activities and instructions. The situation was further exacerbated by the relocation of the Fire Station to Carlisle Castle.

### Carlisle Bronze Command

#### **Background Information**

Carlisle is the principal conurbation in Cumbria (population 90,000); it also provides an administrative base for local government. The city is situated on the River Eden where two significant tributaries the Caldew and the Petteril, join the main River Eden, both are prone to rapid flooding. The city's eastern suburb has been the site of flooding for many years although the substantial flooding defences have, to a degree, reduced its immediate effect upon the city. The city's civic centre, the magistrates' courts complex, police and fire stations were all directly affected by flooding greatly escalating the difficulties faced by the civil authorities.

Carlisle city is served by one fire station which forms part of the central police station and magistrates' courts complex. The fire station is staffed by regular firefighters who crew two Pump Ladder Rescue Appliances, a major rescue vehicle and a turntable ladder. In addition there is a multi purpose vehicle for support at special incidents and an all terrain vehicle, various other ancillary vans are also based there, none of which have dedicated crews allocated to them.

A four shift 2-2-4 system is operated; day shifts commence at 0900 hours and terminate at 1800 hours. Each watch has an establishment of 16 firefighters effectively ensuring an average of 12 firefighters on duty at any one time.

## Positive Aspects

- Crews adhered closely to the principles of dynamic risk assessments and observance of operational procedures particularly water policy. Where deviation from normal practice occurred, it appears to have been done in full knowledge of the risks and after analysis of risk/benefit.
- Crews generally operated as a unit using their own initiative to identify tasks. Where operation as a single crew was not justified, firefighters worked in pairs or as members of multi-agency crews. Where possible, crews were underpinned by the presence of a station or group manager.
- When difficulties were encountered with the UHF radio scheme or the single channel on the VHF scheme became too congested, Channels 21 and 22 of the VHF scheme were employed, providing good local area communications.
- The Fire & Rescue Service elements of liaison between Fire Control and the Bronze, Silver and Gold Commands were generally good despite the difficulties experienced by some of the other agencies involved.
- Crews responding from Cheshire and Merseyside proved to be self reliant and readily adjusted to operating in an environment remote from their fire authority. In the event, they were rapidly able to contribute to the multi-agency response.
- The support received from Cumbria Fire and Rescue Service's Occupational Health Team was invaluable and well received. Their proactive response and provision of advice enabled crews to operate in difficult and unhygienic conditions with confidence.
- The provision of hourly multi agency briefing by Silver Command ensured that managers and crews were kept well informed of the situation as it developed, and maintained focus on core tasking.
- The practice of nominating the same managers in Gold, Silver and Bronze Commands enhanced continuity and assisted handovers.
- Good decision making at Bronze and Silver Commands ensured that a risk assessed approach was adopted, although on occasions this conflicted with less well informed instructions from Gold Command.
- Support from other agencies and partners was generally above the normal call-of-duty
- Many responders both on and off duty were victims of the floods themselves with direct responsibilities for their immediate families. These personnel continued to provide front line services in a highly professional manner.

## Negative Aspects

- The single channel of the VHF radio scheme was repeatedly overloaded with voice traffic, 'break-in' procedures need to be re-enforced to personnel so that emergency access to Fire Control is not denied or unduly delayed.
- Because of the high wind speeds prevailing, the hilltop site VHF transmitters and receivers sustained superficial damage disrupting the audibility of the scheme. To compensate for this lack of communication, managers resorted to the use of mobile telephones in order to communicate with each other and other agencies. As a result, Fire Control was often not told of decisions on the incident ground and was not able to maintain a comprehensive log of events and actions.
- Incident ground radios operating on UHF frequencies proved to be unreliable; this failure can be attributed to poor battery maintenance and poor channel discipline. Once these problems had been addressed, incident ground

communications improved considerably. The option of providing charging facilities for both UHF radios and mobile phones on appliances should be investigated to provide greater resilience for communications at extended incidents.

- During the period of disruption to the VHF wide area network, it was impossible to contact some appliances because their mobile telephone had not been activated at mobilisation. The need to switch on appliance mobile telephones at the time of mobilisation needs to be re-enforced to all crews.
- Many crew members undertook tasks in cold, wet and unsanitary conditions wearing traditional fire fighting kit. This clothing was never designed to provide protection during submersion and consequently not only failed to provide protection but also inhibited freedom of movement. In addition, once wet and contaminated, the cleaning and drying process is time consuming and creates considerable logistical problems should crews be deployed to other incidents during the meantime. In view of the expanding role of the Service and the public's increasing expectations of its capabilities, there would appear to be justification for a review of the provision of protective clothing whilst working in such environments.
- The buoyancy aids currently provided on appliances were procured to protect personnel should they inadvertently fall into water. The task crews were asked to perform during this period of activity required them to operate, often in confined conditions, where the aids were found to constrict their movements and hinder their efforts.
- The spate conditions prevailed for a period of 36 hours, during which crews were expected to operate for long periods without relief or sustenance. The cold wet conditions exacerbated their predicament which led to early fatigue and increased the likelihood of accidents occurring. Even though the Service was stretched to its limits particularly in the north of the county during the first 48 hours, the provision of relief crews should have been a greater priority, despite the reluctance of crews and managers to stand down.
- Awareness needs to be raised amongst operational managers of the need in such situations to declare a major emergency. The fact that a major emergency was not declared in the initial stages had no bearing on the manner on which the Fire and Rescue Service handled this incident and the resources that it brought to bear. However, the implementation of the County's Emergency Plan would have ensured that a range of agencies were notified at an earlier stage of the incident.

## Fire Control

### **Background information**

Cumbria Fire and Rescue Service Fire Control is located at Cockermouth. The control room suite is self contained providing limited welfare facilities as well as resilience for communications systems and power supplies.

The staffing model consists of four watches with a total of 16 full time equivalent (FTE) staff plus a Group Manager who has day to day responsibility for the control room efficiency. Control room staff operate within a four watch 2-2-4 system, two watches consist of 4 FTE, the other two of 3.5 FTE. (A further FTE provides day cover).

The Control room is located on the first floor, and accessed through an Operations Room partitioned from the operator positions by a clear glass screen. There are four multi functional operator positions, one of which is enhanced with supervisory facilities for the Watch Manager. Under normal operating conditions, each position is allocated a primary task, i.e. reception of emergency calls, radio control, administrative duties and supervision.

In addition to the core responsibilities of receiving emergency calls, dispatching resources and supporting operational activities, control room staff undertake a wide range of supplementary duties supporting service activities and providing a reception point for the County Council out of hours Highways Reporting Desk.

### **Positive Aspects**

- The introduction of Spate Conditions Procedures authorised operators to prioritise calls and vary pre-determined attendances in the most heavily affected areas. This freedom allowed for the maximisation of resources.
- The presence of a Principal Manager and the Group Manager (Fire Control) in the Control/Operations room was considered beneficial by the operators who were then able to seek advice and reassurance whilst prioritising tasks.
- The provision of a comprehensive briefing to control operators prior to them relieving their colleagues at the start of shift was considered by them to be invaluable, enabling them to understand the full scope of operations prior to their direct involvement.
- During the busiest period, Central Control Processing Unit 1 failed and defaulted to the number 2 Unit, yet this was invisible to the operators. The on-call technician was able to reinstall the unit with no interruption to service being detected by operating staff, thus confirming the resilience of the system.
- The severity of the storm across the county meant that power supplies to individual fire stations were often disrupted, and in some cases damage to aerials was sustained. However, despite these occurrences, the inbuilt resilience of the mobilising systems ensured that the systems continued to operate and service was never compromised.
- The Highways Hotline, when switched through to the Control Room, diverted the attention of staff from the essential task of answering emergency calls and mobilising resources. By diverting the calls to a voice bank, whilst relieving the immediate problem of speeding up the control room's primary tasks, created further difficulties for Highways staff, and members of the public who were trying to report hazards on the roads. It is considered inevitable that during spate conditions caused by exceptional weather conditions, both agencies are liable to be inundated with calls. Consequently, routing both types of calls into one control room invariably overloads the operators and reduces the resilience of the system.

### **Negative Aspects**

- Difficulties were experienced in trying to contact other agencies; this was particularly true with regard to relaying requests for sandbags to the District Authorities even though arrangements had been established prior to the first flooding reports being received. However, liaison with some of the other agencies, particularly the Police, Environmental Agency and the county's

Property & Transport Services Unit was considered to be very good considering the exceptional circumstances.

- Because the control room only has four operating positions, and watch strength is restricted to four personnel, during extremely busy periods there are only very limited opportunities for staff to take breaks. During the first 24 hour period this was very much the case, with operators confined to their positions for the full shift. It was fortuitous that the watch on the Friday night who took the greatest number of calls were on the last shift of that tour of duty and consequently were able to enjoy a reasonable recovery period before returning to duty.
- Aligned to the issue raised above regarding staffing levels, on this occasion because of the shift patterns and the limited staff available and the need to ensure staff received adequate rest breaks, it was impossible to ask staff to return to duty in order to provide relief. It would also have interrupted the continuity that operators provided during their shift period.
- Some form of visual display board would have proved advantageous providing a one glance appreciation of the deployment of resources. This would have assisted operators during their hand over procedures at the start and end of shifts; it would also have assisted the senior manager to appraise the overall situation.
- Difficulties were experienced with temporary faults caused by storm damage to the VHF radio scheme. These difficulties were compounded by some crews who failed to turn on their appliance cell phones.
- A direct telephone link to Gold and Silver Commands would have been beneficial alleviating the difficulties posed by the vagrancies of the cellular network.
- A tendency was noted for managers operating at incident grounds to contact agencies directly without appraising Fire Control. Whilst communications systems were very congested, by not informing control of actions taken, valuable information may fail to be recorded on the log and the possibility of duplication of effort may occur. Strict reporting disciplines must be observed.
- Because of the sheer volume of calls being received, and because of the congestion on the main scheme radio, some vital information regarding the numbers of rescues effected and incident attended failed to be logged completely. It was felt that some of this information could have been collated by Silver Command.

### Logistical Support

#### **Positive Aspects**

Exceptional demands were placed upon the Service's fleet of appliances and the equipment they carried, however in spite of the adverse weather conditions and for many appliances the prolonged operating requirements, only one mechanical failure was reported. Much of the credit for this notable achievement must be related to the high quality of the maintenance regime employed and the skills of the workshop staff.

Under normal operating conditions, the timely provision of logistical support is a key element of success. During this incident it was critical, particularly as the support normally provided from the local fire station(s) was not always available. The exceptional teamwork and innovative solutions from all staff across the Service to unforeseen problems allowed the operational crews to continue their essential work with only limited disruption to normal procedures.

## Negative aspects

Because of the difficulties experienced with the cleaning and drying of personal issue firefighting kit, (an experience which is not restricted to this particular incident), it may be prudent to review the extent of personal issue equipment to a level that is unlikely to subject the wearers to donning dirty, wet, or ill fitting fire kit.

## Financial Aspects

The storms inevitably incurred considerable financial implications for the Service. These can be sub-divided into three categories:-

- Increased remuneration costs for staff.
- Damaged vehicles and equipment.
- Structural damage and relocation costs at Carlisle and Appleby Fire Stations.

## List Of Main Recommendations

- Due to the fallback location of Gold Command, there were no facilities for recoding decisions, actions or instructions on a common log. This should be explored so that there is a full audit trail throughout the incident.
- Consideration should be given to sharing definitions terminology and procedures when deploying teams to ensure common aims are met and ambiguities avoided.
- The provision of recharging facilities for mobile telephones and UHF radios on front line appliances should be investigated.
- The provision of suitable protective clothing for personnel operating in wet and unsanitary conditions should be investigated and provided.
- The buoyancy aids currently provided to crews, whilst suitable for the purpose they were originally issued for, do not meet the needs of personnel when operating in confined environments. Suitable buoyancy for this new role should be investigated and issued.
- Due to the overwhelming situation that crews found themselves in during the initial stages of the incident, and the fact that there was no information as to how widespread the incident was at that stage, there was insufficient consideration given to initiating the major emergency procedures. Managers should receive training to enable them to recognise the indicators of a possible major emergency at an early stage and so help to avoid delayed reactions by other responding services and agencies.
- Managers should be reminded of the importance of not bypassing Fire Control when using mobile telephones to gain information or pass instructions. Fire Control needs to be aware of decisions and instructions to ensure they are recorded on the incident log.
- During periods of exceptionally adverse weather, Fire Control's primary task of receiving emergency calls and mobilising resources conflicts with their secondary task of receiving and recording highways defects. A thorough review of capabilities to sustain both rolls concurrently should be undertaken.
- It is essential that all personnel operating at an incident are mobilised by Fire Control and are accounted for on the incident ground in the approved manner. Personnel wishing to offer their services for an incident must report

their availability to Fire Control who will record the offer and determine whether to mobilise or not. Likewise, managers who identify unauthorised attendance at an incident must ensure that respondents are either formally recorded and deployed or are stood down to await deployment at a suitable time.

## **ORGANISATIONAL DEBRIEF – CUMBRIA AMBULANCE SERVICE**

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### Overview

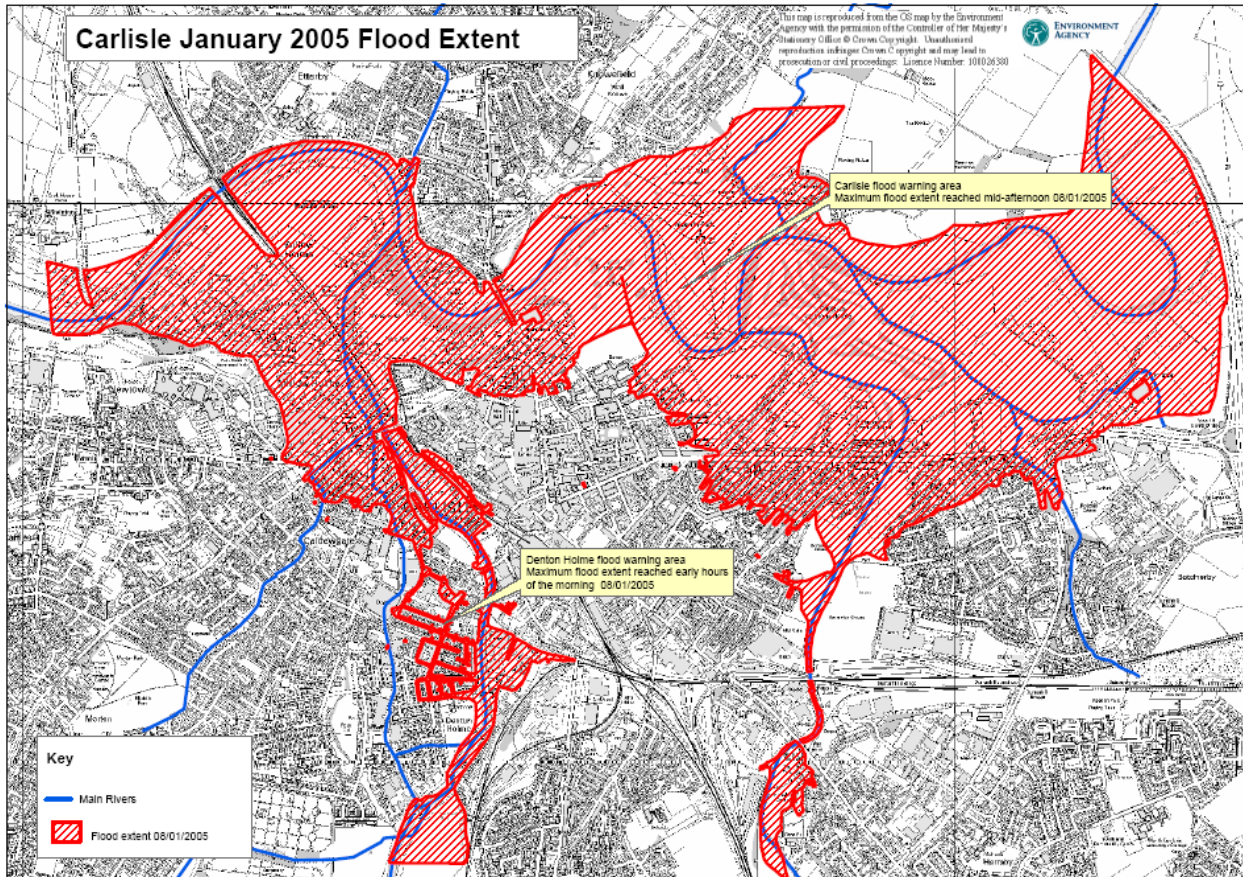
On the evening of Friday 7<sup>th</sup> January 2005, Cumbria was subjected to a severe weather front bringing high winds and heavy rain. This was general throughout the county. Flood watch messages had been received at Ambulance Control from the Environment Agency throughout Friday.

During the evening and into Saturday morning, the weather deteriorated to such a degree that vehicle movements were disrupted. Between 2200 and 2300 hours on Friday 7<sup>th</sup> January, two ambulances engaged on out-of-county transfers from West Cumberland Hospital – one bound for South Cleveland and the second for Blackpool – had to abort their journeys due to high winds and localised flooding.

At approximately 2330 hours, a request was made to participate in the movement of people in the Appleby area should an evacuation be necessary. This information was relayed to the on-call Managers (Director of Operations and Emergency Planning Manager).

Between midnight Friday and Saturday morning, there was a continual deterioration in weather conditions. Roads were obstructed by localised flood and fallen trees, and in some cases became impassable. This hampered vehicle movements and as such the capability to respond to patients throughout the county was reduced. As the level of the floods escalated, the need for evacuation of Residential Nursing Homes and Keswick Cottage Hospital was required.

Throughout the night and into Saturday morning, rivers in the Carlisle area (Caldew, Eden and Petteril) burst their banks. This resulted in flooding within Carlisle City as can be identified at Figure 1.



**Figure 1**

It was at this time that requests began to be made by residents, the Fire Service and the Police for assistance in the evacuation of the affected population. As the conditions deteriorated, vehicle movement was severely hampered and as a result of the water levels, two A&E ambulances were caught in floods.

Actions by Cumbria Ambulance Service NHS Trust (the Trust) were to:

- Assist in the evacuation of people from flooded premises.
- Attempt to respond to calls from those requiring medical treatment within the affected areas in Carlisle.
- Respond to calls from those requiring medical treatment throughout the county.

At approximately 0945 hours on Saturday 8<sup>th</sup> January 2005, Cumbria Ambulance Service NHS Trust (the Trust) declared a major incident due to its inability to maintain its functions of responding to and treating casualties due to the flooding primarily within Carlisle City.

Subsequent actions saw the Trust activate its Business Continuity Plan and its Major Incident Plan. In conjunction with the other responding agencies, the Trust:

- Assisted in the evacuation of people from flooded premises.
- Responded to calls from those requiring medical treatment.
- Activated the voluntary aid societies to assist the local authorities within the reception centre.

The number of calls to Ambulance Control on Saturday 8<sup>th</sup> January 2005 was by far in excess of that on Saturday 1<sup>st</sup> January 2005 (New Years Day).

### Alerting procedures

Flood Watch and Flood Warning faxes were received at Ambulance Control from the Environment Agency (EA) throughout Friday. At this time, no major problems existed that compromised the ability of the Trust to perform its main functions. The receiving of warnings continued into the early hours of Saturday morning – mainly Flood Warnings – and Severe Flood Warnings later in the day. No action was deemed necessary by the Control Duty Manager in relation to the faxes.

At approximately 0945 hours the decision was made by the Trust to declare a major incident. This declaration was followed by the activation of its internal on-call manager page system to inform all managers of the declaration.

The alerting of off-duty operational personnel was through the ambulance station network. This identified shortfalls in the information stored on staff, such as up-to-date telephone numbers etc which would be required should an incident be casualty intensive.

Although slow to be actioned, activation of British Red Cross and St John Ambulance was in accordance with the Trust Major Incident Plan utilising information contained within the Emergency Communications Directory <sup>[1]</sup>. There was initial difficulty contacting the Health Protection Agency although this contact was eventually made.

At no time prior to the Trust declaring a major incident at 0945 hours, had any of the other agencies contacted the Trust with regards to declaring a major incident or to the activation of the contingencies within the Cumbria County Council General Emergency Plan (CCC GEP). Had the incident been declared as a major incident prior to 0945 hours and the alerting cascade as per CCC GEP carried out, the provision of supporting agencies would have been realised at an earlier time.

[1] provided by Cumbria County Council

### Resources

Resources required by the Trust to fulfil its function relate to vehicles and personnel. The Trust operational and control resources available at any one time reflect operational requirements and are based on historical data under normal conditions. When faced with increased requirements such as those presented during the early hours of Saturday 8<sup>th</sup> January, additional resources rely on the availability of off-duty staff.

Initial resources appeared to meet the requirements for the ongoing operational activities. When it was identified that operational resources were not to the level required, requests to off-duty staff in the early hours of the morning did not realise those additional numbers of staff. This was for many different reasons. Once there was a realisation of the magnitude of the incident and that a major incident had been declared, staff at all levels reported for duty over and above what was expected of them under normal conditions.

Due to the cancellation of non-essential transport from Monday onwards, this allowed the available resources to be redeployed to provide extended transport capability throughout the incident on a 24-hour basis.

Additional resources were requested to assist in the transportation of casualties and medical management within the reception centres. This was supplied by Scottish Ambulance Service, the British Red Cross and the St John Ambulance.

Offers of further assistance were received from NHS Ambulance Trust nationally.

### Command and Control

No formal multi-agency command and control system was implemented in the early stages of the incident – possibly due to the lack of a declaration of a major incident by any of the agencies.

The opening of a Silver Command / Incident Control Centre at Carlisle Castle was not identified to the Trust until Saturday evening by which time the Castle was accessible only by boat. This resulted in no presence by the Trust during the response phase and as such management of the incident at an operational level was not co-ordinated by a tactical level of command.

### Interagency Working

Due to this not being declared as a major incident by any of the agencies until a late stage, interagency co-operation and working at an operational level by all agencies was to the level normally expected in the management of any incident albeit uncoordinated.

Co-operation between all agencies at Silver and Gold ensured information flow was timely and allowed for definitive decision making to be made although during the quiet hours there were not all agencies present.

The timely formation of the Health Advisory Group (HAG) involving such agencies as the Director of Public Health and representatives from the Health Protection Agency, the Primary Care Trust and the Ambulance Service further enhanced the capability to address the needs of those vulnerable members of the public that had either been evacuated or, as in the case of those in residential care homes etc, the decision was made for them to remain at home.

### Casualty management / Search and Rescue / Evacuation

Due to the weather conditions countywide, the capability of the Trust to respond to calls from members of the public and the other agencies was severely compromised.

Casualty numbers requiring hospital attendance as a consequence of the flooding were low due to the nature of the incident. Arrangements were made for minor injuries to be managed at the reception centre so as to reduce the impact on the Cumberland Infirmary, Carlisle (CIC).

Assistance in transporting evacuees was received from MoD and Air Ambulance resources, neighbouring NHS Ambulance Services – primarily Scottish Ambulance Service – and the voluntary aid societies.

The responsibility for search and rescue is primarily that of the Fire Service. The responsibility for evacuation is of the Police. These tasks were made difficult due to the prevailing conditions and the available resources at that time and as such it became a joint operation by all agencies.

The Trust was requested to supply vehicles to assist in the movement of people from the affected areas although there was confusion regarding a rendezvous point (RVP). Fire and Police requests for vehicles to assist with the evacuation were to addresses that were inaccessible and not to a predetermined RVP.

### Reception Centres / Welfare

The provision of refuges and for the welfare of the non-injured is that of the local authorities. The responsibility of the Trust with regards to reception centres etc is to provide assistance to the local authorities through the provision of first aid / medical treatment within them. This is generally performed by the voluntary aid societies following their activation by Ambulance Control and in this case was by the British Red Cross and St John Ambulance.

Due to the power outage within Carlisle, the main reception centre, the North Cumbria Technology College (NCTC), lost the ability to provide heating and lighting. As an interim measure, the Trust provided a generator so that heat and light could be restored until the arrival of a more substantial generator. This was through inter-agency liaison at the HAG. In addition, the Trust supplied 200 thermal blankets to give some degree of warmth with the centre.

### Public Warning / Media / Public Information

Due to the magnitude of the incident, multi-agency media release was through the media co-ordinator at Carleton Hall. Due to the lack of a specific officer from the Trust being tasked with media co-ordination, response to the media on behalf of the Trust was limited. This was evident within the local and national media.

Evidence of the power of local media was seen when, due to the cancellation of non-essential transport (patients attending outpatients' appointments etc), a public information message was released by the Trust through the media co-ordinator to Radio Cumbria on the morning of Monday 10<sup>th</sup> January. Although the initial message appeared to have been lost in the [Radio Cumbria] system resulting in ambulance control being inundated with calls from the public regarding transport, on its re-release the number of calls subsided dramatically.

A Public Information leaflet was provided to the general public via the HAG relating to the risk to health due to the contamination of flood water with sewage. This was distributed by the MoD and Mountain Rescue Teams on behalf of the HAG.

## Communications and IT

The ability for Ambulance Control to maintain its function was due to the backup generator providing critical systems cover resulted in few problems. Due to the increased workload within Ambulance Control, internal contact with Ambulance Control was found to be difficult due to the number of calls being taken from members of the public.

Ambulance radio systems capability was maintained throughout the incident with only minor problems that in one instance required the provision of a generator to supply power to the NTL radio transmitter in the Penrith area.

Due to the network server not being on the secured power system within Ambulance Headquarters, Intranet and Internet access within Ambulance Control and throughout the Trust was not possible. This resulted in missed information at Ambulance Control.

Personnel that represented the Ambulance Service at Silver were not initially allocated IT facilities.

Due to Carleton Hall not being a designated Emergency Control Centre, IT facilities were not readily available in the early stages of the incident although as the incident progressed, individual agencies that provided their own IT were able to access the Internet and therefore pass / receive information as required.

## Power Supply

Due to the power outage caused by the flooding to the Willowholme sub-station, Ambulance Headquarters and Ambulance Control were without mains power. Ambulance Control capability was maintained due to critical systems being covered by backup generator (Business Continuity Plan).

Although the backup generator provided power to critical systems within A&E Control, this did not include the provision of power for staff and for their welfare outside the A&E control room resulting in overcrowding of A&E Control. Had this incident occurred during the normal working week, administration function within Ambulance headquarters would not have been possible.

## Concerns

- Late declaration of major incident by the ambulance service.
- No formal declaration of a major incident by the other agencies involved.
- No cascade as per the County General Emergency Plan / Trust Major Incident Plan.
- Limited ability of the Trust to contact staff in the event of a major incident occurring where additional resources are required or to check on their welfare during such an incident.
- Limited capability for business continuity when compromised due to power failure within Ambulance Headquarters.

## Recommendations

- The Trust emphasises to all staff levels the importance of early declaration of the potential for a major incident developing so that appropriate resources both internal and external can be alerted.
- The Trust investigates a more robust method of staff contact for all large-scale incidents or unforeseen events.
- The failures of IT provision and the continuation of Trust business to be investigated through the utilisation of the critical system backup generator where this does not pose any degree of compromise to those critical systems for which it was designed.
- The findings of the internal debrief is brought to the attention of the other agencies at full de-brief.

## Conclusion

An ambulance service is provided with the operational resources to undertake its' functions – casualty management and transportation – under normal day-to-day conditions and the command and control and support departments to enable these functions. In addition, the Trust has in place contingencies in the form of the Business Continuity Plan and the Major Incident Plan to address any untoward incident and the required level of response thereof.

It is only on the declaring of a Major Incident – “standby” or “declared” status – that an agency will prioritise its resources and therefore be in a position to respond to the increase requirements placed upon it.

Because no formal declaration of a major incident to whatever status was received by the Trust from any of the other agencies prior to its' declaration of 0945, there was not a coherent level of command structure in place from the onset and as such the Trust was in a state of “catch up”.

During this incident, the declaration of a major incident was not received at all of the agencies and therefore the response to it was fragmented with the alerting of support agencies being delayed.

Due to this incident being rescue of people from a flooded area and the subsequent welfare considerations and not specifically directed at casualty medical treatment, this incident was not that normally attributed to the ambulance services role and as such was primarily supportive of the other agencies.

## What went well?

- Support for critical systems within A&E Control.
- Identification that backup generator was not running at anywhere near its capacity resulting in the potential to run all of ambulance control and headquarters in the event of power outage.
- Good inter-agency working at all levels.
- Good level of support from all voluntary aid societies.
- Good level of actual and offered support from national agencies.

### What did not go well?

- Delay in identifying that a major incident was occurring.
- Lack of declaration of major incident status.
- Basic command and control initiation – lack of notification of opening of the Castle as silver command.
- Non-compliance with the Trust Major Incident Plan and the CCC GEP in alerting responders and the support agencies.

### Lessons Learnt

The importance of major incident identification, declaration and subsequent activation of resources.

### ORGANISATIONAL DEBRIEF – CARLISLE CITY COUNCIL

For further information on this report contact John Mallinson, Carlisle City Council at [johnm@carlisle.gov.uk](mailto:johnm@carlisle.gov.uk)

#### Alerting/Call-out

- Although timely warnings were given by the Environment Agency throughout Friday 7<sup>th</sup> January, the extreme severity of the event was not clear to all those involved
- Communications problems due to landline and mobile failures compounded by staff being personally affected caused difficulties

#### Emergency Control Centre (Silver Command – Castle)

- Difficult to ensure effective communication between Gold and Silver command, although communication was adequate to ensure an effective response to the emergency
- Handover of control to the City Council in order to effect the recovery phase worked well with support from the Police as the lead in Gold command

#### Resources

- Flexibility and committed support from staff and partners
- Effective team building exercise particularly between staff based at Bousteads Grassing and staff temporarily re-located

#### Public Information/Telephone Enquiry Service

- Public and staff should be reminded of value of battery radios

#### Communications/IT

- The lack of power supply had a major impact on communication between staff dispersed across the City. Though the reliance on e-mail was overcome
- IT Unit's Business Continuity Plan worked well.
- Customer Service's were vulnerable as a result of this new service lacking mature and resilient Business Continuity arrangements

#### Power Supply Issues

- More resilience may be required for Willowholme sub-station
- Civic Centre generator may need a more resilient location—needs to be risk assessed when the necessary data are available

## Inter-agency Working

- Excellent working relationships developed and strengthened during the emergency period across all agencies, particularly Environment Agency, County Council, Fire, Police and the Voluntary Sector
- Good inter-agency working particularly in Customer Services working with Police / churches / other agencies.
- Good links with other agencies—particularly in Gold and Silver command where key individuals knew each other well from regular emergency planning exercises
- Inter-agency working in the Castle was particularly effective
- County Council Neighbourhood Services contribution in Castle was very important to maintaining effective links with communities
- Voluntary sector – particularly Red Cross – were invaluable
- City Council staff at the Castle were superb, working largely outside their experience

## What went well?

- Business Continuity Plan and Business Recovery Groups
- Clean up at Willowholme for Showmen's Guild
- Housing Recovery Group. Door knocking exercise went well with good staff commitment particularly in the first week. Carlisle Housing Association assisted with office space and expertise
- The Council's Business Recovery Group. Decisions to effect rapid business recovery were made quickly and effectively
- The need to focus on one priority generated a high degree of energy and enthusiasm among the City Council's staff
- Commitment of staff – thinking creatively and working together
- Speed of clean up operations which went very well
- Good control and co-ordination of ECC

## What did not go well?

- Lack of communication in initial stages due to network/landline failures
- Many Council staff were not clear about the roles of Gold and Silver command — this was exacerbated by the need to base control at an alternative location to the Civic Centre
- Housing/homelessness — the sudden and unprecedented growth in demand for these services precipitated a significant resourcing issue

## Lessons Learnt

- Review of call out and standby arrangements – and greater level of cover for key posts
- Greater clarity of roles required in Gold and Silver Commands
- Need to consider the development of a reserve ECC (at Bousteads Grassing?)
- Emergency Plan should be enhanced to cover housing issues
- Need to keep up to date contact lists of all staff off site, not just emergency responders
- Transfer and translate focus associated with fewer priorities into day to day work

- Need to recognise that Emergency Plan and Business Continuity Plans are linked but separate activities—they need to compliment one another
- Designated lead officer for reception centres to deal with on site issues and finances and liaison with reception centre owners/operators
- Put housing/homelessness officers into reception centres from their set-up
- Helpful to include more Welfare co-ordination into the Emergency Plan

### Next Steps

The debrief has identified a number of actions for the City Council. Some of these will require changes to policies and procedures and some may have resource implications. A costed action plan will be considered by the Council's Executive Committee in June 2005 for subsequent consideration by the full Council.

## **ORGANISATIONAL DEBRIEF – CUMBRIA COUNTY COUNCIL**

For further information contact David Humphreys, Cumbria County Council at [davidhumphreys@cumbriaepu.gov.uk](mailto:davidhumphreys@cumbriaepu.gov.uk)

Serious flooding and storm damage began to occur in Cumbria on the evening of Friday 7<sup>th</sup> January 2005 with selective evacuations taking place. As the night progressed, the situation became significantly worse with most roads impassable due to a combination of flooding, fallen trees and road traffic accidents. Conditions were so severe that it was not until daylight on Saturday 8<sup>th</sup> January that the full extent of the impact of the storm could be appreciated.

The County Council Emergency Control Centre at the Castle in Carlisle was opened late evening on the 7<sup>th</sup> January and a small number of staff attended in order to open up some Reception Centres and carry out other actions in anticipation of a requirement for a wide scale evacuation. As the scale of the emergency became apparent during the night, a decision was taken to delay calling in more staff until daylight due to health and safety implications of travelling in darkness in extremely hazardous conditions.

As dawn broke on the morning of the 8<sup>th</sup> January, the situation in Carlisle deteriorated rapidly with major flooding affecting many parts of the City. At this point, more staff were able to attend the County Council Emergency Control Centre. About this time, a major incident was declared by the Deputy Chief Constable and a Gold Command Centre was established at Police HQ in Penrith. Two Emergency Planning Officers were sent to this Centre and represented the County Council until handover to Carlisle City Council on Thursday 13<sup>th</sup> January.

Conditions in Carlisle continued to deteriorate during the morning of 8<sup>th</sup> January. The Civic Centre, Police Station and Fire Stations were all devastated by floodwater. Fortunately, all fire appliances from the Carlisle Station managed to escape the flooding and were relocated to the County Council Emergency Control Centre, which became the home for both the Fire and Police Services for a number of days.

The loss of the Civic Centre meant that the Emergency Control Centre located on the 1<sup>st</sup> floor could not be activated as the County Plan required upon declaration of a major incident. Control (Gold) was therefore devolved to Police HQ in Penrith with the Castle acting in an operational (Silver) role, an arrangement that was less than ideal.

Gold Command at Penrith decided that the main thrust of emergency actions should be concentrated on Carlisle and that life saving and evacuation were the major priorities.

Cumbria Fire Service under the direction of the Chief Fire Officer located at Police HQ and the Deputy Chief Fire Officer located at Fire HQ in Cockermouth took the lead in rescue operations with the help and support of the RAF, RNLI, Coastguard, other Fire Brigades and many volunteers. A separate debrief report gives more details.

The County Reception Centre Emergency Plan was then activated with a Reception Centre being set up at North Cumbria Technology College. Despite appalling travelling conditions, sufficient staff and volunteers were able to reach the Centre, which operated continuously until Friday 14<sup>th</sup> January. A second Reception Centre at Wigton Road Methodist Church was activated later in the day to accommodate evacuees from the west of the City and to assist the Cumberland Infirmary. A number of other Centres were opened spontaneously and the response of so many officers, volunteers, local firms and members of the public in supporting these Centres was exceptional.

Failure of the entire electricity supply to Carlisle around midday resulted in a desperate need to source generators. The County Council Emergency Control Centre is equipped with its own standby generator, which supplied the Centre with electricity for the entire period of power outage which lasted in most of Carlisle for approximately 36 hours. It cannot be stressed enough how critical the generator was to the emergency response with Carlisle as the Centre's roles continued to expand to include boat deployment centre and forward operational base for support agencies such as the Army, Coastguard etc.

Cumbria Contract Services took the lead in the sourcing and deployment of generators to Reception Centres, Care Homes and other critical locations using generators from the Emergency Services, local hire firms, Emergency Planning Unit and their own stocks. They also resourced many other items such as hot food, consumables etc.

By mid afternoon, emergency operations in Carlisle were becoming even more difficult following failure of the mobile phone networks due to power supply failure. Emergency Planning Unit emergency mobile phones which were able to receive some network signals were deployed to critical locations such as the Reception Centre. The presence of an Orange Mobile Cell within the Control Centre at the Castle, which continued to operate throughout the emergency, was of considerable benefit.

Around 1800 on Saturday 8<sup>th</sup> January, a major telephone cable fault occurred in the vicinity of the Civic Centre, resulting in failure of all landline telephones in the north of the city. This meant that there was no '999' emergency service available in North Carlisle and the County Plan for telephone failure was activated. This was achieved by placing Mountain Rescue Radio Operators in vehicles located at all public call boxes. A base station was established in the County Council Control Centre to receive emergency calls which could then be passed to the emergency services.

The County Council Emergency Control Centre was operational and staffed by representatives from most of the directorates from Saturday 8<sup>th</sup> January until the handover to Carlisle City Council on Thursday 13<sup>th</sup> January. During this period, the Centre also housed representatives from many of the agencies dealing with the emergency, including United Utilities. It also functioned as a temporary Police Station and Fire Station. For approximately 1 month following handover, the Centre housed a group of officers from Carlisle City Council dealing with flood recovery.

The response of County Council Staff in extremely difficult conditions was outstanding, particularly as many of them were also experiencing problems with damage in their own homes.

The following proposed action plan attempts to identify a number of important lessons which if acted upon will better equip the County Council to deal with future emergencies.

# CUMBRIA COUNTY COUNCIL ACTION PLAN

## Proposed Action

## Proposed Outcome

1.	Consider the introduction of a 'duty director' on call scheme.	Ensures immediate availability of a senior manager to take strategic decisions for the County Council including financial expenditure.
2.	Review arrangements for alerting all corporate directors.	Establish corporate director alerting cascade using possibly group SMS, pager etc.
3.	Review arrangements for alerting and informing members.	New arrangements to ensure members are kept informed of the progress of an emergency utilising Member Services. Member Services staff to be contactable 24/7.
4.	Review arrangements for calling in additional County Council staff.	Ensures sufficient trained staff can be contacted and mobilised in an emergency to maintain if necessary, an extended duty roster.
5.	Review contracts of employment for all staff with regard to emergency out of hour's response and remuneration.	Address the long standing problem that a number of staff have indicated a reluctance to become involved with training/emergency response as their contract of employment does not include it.
6.	Consider providing members and senior managers with a short pocket guide to what systems would be put in place in a civil emergency.	Ensures members and chief officers understand their respective roles in a major emergency.

**Proposed Action**

**Proposed Outcome**

7.	All directors consider establishing, reviewing and maintaining internal alerting arrangements and contact details including those for schools.	Ensures Directorates can swiftly mobilise appropriate staff in an emergency. In accordance with directorate plans.
8.	Review training and exercise arrangements for staff at all levels in emergency response.	Ensures staff with an emergency response roll are adequately trained and able to perform their role with in the directorate and Multi-agency Emergency plans
9.	Ensure Directorate representatives in the County Council Emergency Control Centre are able to access their Directorate	Ensures access to information and records which may be of use in the multi-agency response
10.	Review arrangements or disseminating emergency information to County Council staff	Arrangements in place to keep all staff updated concerning an emergency using corporate messages and Cumbria Alert website
11.	All Directorates consider establishing their own planning groups to draw up, review and maintain Directorate emergency and business continuity plans	Ensures that Directorates have effective emergency and business continuity plans to respond effectively to an emergency.
12.	Consider the establishment of a specific post outwith the Emergency Planning Unit to coordinate emergency planning and business continuity planning within the County Council	Creation of a post located within the corporate centre of the County Council to assist with the preparation of Directorate Emergency Plans and to ensure that Directorates are fully compliant with the requirements of the Civil Contingencies Act.
13	Establish a County Council Emergency planning Group to consider implementation of emergency planning issues for the County Council including Directorate emergency plans	The group would manage and coordinate all emergency planning issues within the County Council.

**Proposed Action**

**Proposed Outcome**

14	Review resilience of storage of data and accessibility during emergency situations including backup power.	Ensure that critical computer systems are operational during emergencies through the provision of backup power.
15	Encourage all Schools, Care Homes, County Council premises and emergency response staff to investigate effects of power failure on DECT telephones and switchboards and if necessary install additional line(s) or ordinary cable handsets	Ensures establishments can make calls and be contacted during power outages.
16	Encourage Care Homes etc to consider the purchase of generators/cookers/heaters including wiring provision to enable premises to function during power outages without external support.	Would reduce any reliance on external support during emergencies, thus freeing up emergency services and CCC staff to deal with other issues. Would be a significant improvement to health, safety and welfare of residents.
17	Review County Council reliance on a single mobile phone provider.	Provision by current service provider of roaming on other mobile networks for key staff would increase resilience. Consider renegotiation of current contract.
18	Role of Area Support Managers in the County Council response be recognised and their authority to incur emergency expenditure be clarified.	Area Support Managers have authority to deploy resources and staff and incur emergency expenditure thus reducing possible delay in County Council response
19.	County Council role in the provision of evacuation transport (buses etc) be reviewed.	In liaison with Cumbria Local Resilience Forum, address the current situation where the responsibility for providing evacuation transport is unclear and then put in place robust plans.

**Proposed Action**

**Proposed Outcome**

20	County Council to nominate a number of staff from other directorates to be trained to manage and support the County Council Emergency Control Centre.	At present only Emergency Planning Unit staff are trained in this role. Training courses for other staff have been poorly supported. Availability of other staff would reduce pressure on Emergency Planning Officers and release them for other more appropriate roles.
21	'Cumbria Alert' website be introduced on a permanent basis and publicised widely.	Would greatly assist with the provision of critical emergency information to members of the public. This would enhance the arrangements for warning and informing through local media and comply with the latest Cabinet Office Guidelines for compliance with the Civil Contingencies Act.
22	The provision of standby power at the South Cumbria Emergency Control Centre at Barrow Fire Station be investigated.	Ensures South Cumbria Emergency Control Centre is able to perform its critical emergency functions during a power outage.
23	Consider the establishment of a corporate, Cumbria wide Geographical Information System.	Ensures all agencies have access to the same up to date mapping and other information such as locations of vulnerable people, reception centres, critical infrastructure etc.
24	Recognise the crucial coordinating role played by Cumbria Contract Services in the locating, procuring and deployment of emergency resources and consider the implications of the loss of this CCS key function (including radio system) upon their transfer to a private company on 1st April 2005.	An assurance that a Resources Manager and team will be available to deal with future emergencies.

**Proposed Action**

**Proposed Outcome**

25	Recognise the critical role played by the County Council Emergency Control Centre at the Castle and ensure that comparable facilities are available to the County Council when the lease at the Castle terminates.	Ensuring that a County Council Emergency Control Centre is maintained and supported at all times as a 'turnkey' facility.
26	Promote 'Go in, Stay in, Tune in' principles of current Government advertising campaign.	Ensures general public are fully aware of current advice for their own protection in the event of an emergency.
27	Examine role of 'self help' in emergency situations at Parish Council level.	Supporting and enabling communities at Parish level to help themselves in a widespread emergency situation where the emergency services resources are fully stretched.
28	Review how the role of local radio in information dissemination during emergencies can be further enhanced.	Recognises the invaluable role played by local radio and supporting it further in order to enable responding agencies to maximise the effectiveness of emergency information dissemination.

## **ORGANISATIONAL DEBRIEF – ENVIRONMENT AGENCY**

The Environment Agency debrief for Carlisle is covered in their Northern Floods report. This can be accessed via the UK resilience website at [www.ukresilience.info](http://www.ukresilience.info).

For further information on the sections in the report relating to Carlisle, contact Dave Clarke, Environment Agency at [dave.clarke@environment-agency.gov.uk](mailto:dave.clarke@environment-agency.gov.uk)

## **ORGANISATIONAL DEBRIEF – UNITED UTILITIES**

For further information contact Jane Mills, United Utilities at [jane.mills@uuplc.co.uk](mailto:jane.mills@uuplc.co.uk)

### Purpose

This report has been requested by Government Office for the North West with the purpose of identifying strengths and weaknesses in plans, arrangements and structures arising from the effects of the storms and flooding in Carlisle, January 8<sup>th</sup>/9<sup>th</sup> 2005. The context of the events in Carlisle against the wider incident affecting United Utilities is provided where necessary.

### Alerting procedure

#### **Storm**

On Thursday 6<sup>th</sup> and Friday 7<sup>th</sup> January, the Meteorological Office issued severe weather warnings to UU as part of the normal daily weather forecast service. They forecast mean average wind speed of 45mph and maximum gusts of 60 – 70 mph, these compare with the actual speeds of 97 and 128mph.

In response to the weather warnings, UU ran its storm weather impact model on Friday January 7<sup>th</sup>. (This indicated that some 52 faults on our high voltage network would occur in Cumbria and 13 in Lancashire. The actual weather produced some 700 such faults on UU's network.)

In response to the warnings, the UU Electricity Control Room Duty Manager issued a Stage 1 weather alert to the business at 0800 on Friday January 7<sup>th</sup>. This is the first of a two level alert process which places the business at a heightened state of readiness including increasing control room and call centre staff, maximising standby availability and alerting field managers.

All arrangements were in place by 1600 hours on Friday afternoon.

A Stage 2 warning was not issued as the forecast damage was at minor incident level per our Electrical Incident Management Plan.

#### **Flood**

The Environment Agency routinely issue Flood Warnings, received at our control rooms. These are typically general in nature and cover many rivers in UU's operating area. The initial catchment Flood Watch was issued at Thursday 6<sup>th</sup> January at 1602 hours. A 'Flood Watch' Update for Carlisle was issued at 1707 hours on the 7<sup>th</sup> and upgraded to a 'Flood Warning' at 1734 hours on 7<sup>th</sup> January.

#### **Events**

In the early hours of Saturday 8<sup>th</sup> January, Cumbria and North Lancashire were hit by severe storm force winds gusting up to 128mph. There was flooding of key elements of our electricity distribution infrastructure in Carlisle.

United Utilities declared a major incident based on the extent of power loss due to storm damage across Cumbria and North Lancashire at 0600 on January 8<sup>th</sup> and an 'Electrical Incident Centre' was established to manage the incident in accordance with company procedures.

At 0820 hours on January 8<sup>th</sup> the Cumbria Emergency Planning Manager, Mr Donald Norrie contacted the United Utilities Risk Control Manager, Mr Niall Clarke and discussed the impact of the storms and flooding with specific reference to Carlisle. This was the first information the Company received as to the significance of the events for other agencies.

Following discussions between Mr Norrie, the United Utilities' incident management team and the Cumbria Constabulary 'Gold' command, representatives of United Utilities joined 'Gold' on the afternoon of the 8<sup>th</sup>. Representatives of United Utilities joined 'Silver' in the morning of January 10<sup>th</sup>.

## **Comment**

In common with other agencies, we were not prepared for the severity of the storm based on the information we received from the Meteorological Office. Independent of the forecast, the impact on electricity supplies would have been the same. However, given a forecast which was indicative of the weather actually experienced we would have pre-established our response and recovery arrangements regionally and locally which would have had some impact on the speed of identification of faults and restoration of supplies.

Given the scale of the flooding at Carlisle Bulk Supply Point (BSP), it is doubtful if temporary sandbagging would have had any beneficial effect but, regardless, it would have taken some 48 – 72 hours to erect adequate temporary defences and pumping. This contrasts with the notice period of 15 hours.

By daylight on January 8<sup>th</sup> United Utilities was handling the effects of major flooding and storm damage on our electricity network across Cumbria and North Lancashire, some 250,000 customers affected. There was major flooding of our wastewater infrastructure across Cumbria and Lancashire, 117 sites affected and the network in Carlisle flooded. By early January 9<sup>th</sup> widespread consequential disruption to our water supply operations across Cumbria and Lancashire was being managed with 18 water treatment works disrupted.

## Search and Rescue/Evacuation

Not applicable to United Utilities.

## Reception Centres / Welfare

At the request of Cumbria County Council, United Utilities provided a standby mobile generator to the main Carlisle Reception Centre at the North Cumbria Technical College, Harraby Street on January 8<sup>th</sup>.

## Comment

Agencies need to be aware that United Utilities are not in a position to guarantee to provide generator facilities to key locations such as rest centres, hospitals and their incident management centres and should make appropriate contingency plans.

### Public Warning/ Media/ Public Information

We undertook the following activities to pro-actively inform the public:

- Active communication with customers via the media (mainly BBC Radio Cumbria from the morning of January 8<sup>th</sup>)
- Deployed a Mobile Visitor Centre (MVC) in Carlisle from Tuesday 11<sup>th</sup> (am) to Saturday 15<sup>th</sup> January (pm). This facilitated very useful two-way exchange of information between us and our customers.
- Compensation form and claims process made easily available (MVC, local press, letter to customers in Carlisle included form, UU website and through other agencies such as Carlisle City Council, etc).
- Letter to residents in Carlisle area (approx 3,000 letters issued) explaining compensation position, information about help line and a compensation form - door dropped on Wednesday by UU staff.
- Outbound telephone calls made to customers off supply (Tuesday – Friday)
- Door to door visits to vulnerable customers registered with us under our 'Extracare' service.
- Updates and compensation form carried on United Utilities website.
- Contact made with key business customers on electricity and water quality issues.

The underlying key messages were:

- These incidents have been caused by extreme weather conditions.
- We're working around the clock, as quickly as we can in all weathers to return supply as quickly as possible.
- We're working as part of the emergency response team being co-ordinated by Cumbria Police.
- We would like to thank our customers for their patience

Typically we receive 600-1000 calls per day from electricity customers across the North West. On January 8<sup>th</sup> we received c. 60,000 calls, on January 9<sup>th</sup>, c. 40,000, on January 10<sup>th</sup>, c. 30,000 calls. Despite ramping up the number of call handlers (including drafting in staff from other activities) and increasing available lines customers felt they were not getting the information and support they believed they were entitled to.

## Comment

In the circumstances of such a severe event, United Utilities is generally satisfied with our handling of inbound and outbound customer communications. However we are reviewing our performance internally and in conjunction with our regulator (Ofgem) and customer representative (energywatch) to see what additional arrangements we need to put in place to deal with extreme events. We are currently

commissioning a new customer contact system and the lessons from this event will feed into the design of this system and associated business processes.

### Control

The electricity incident was managed using our company procedure 'Electrical Incident Management Plan'.

The water and waste water incidents were managed in accordance with the parallel procedure 'Operational Incident Management Plan'. A cross business incident team coordinated response across all UU functions.

### **Comment**

United Utilities is generally satisfied that our procedures were adequate in respect of organizing internal operational response to the incident. The scale of the incident did test our cross-business incident control structures. We will be building the lessons and experience of these events into our operational and cross-business incident management plans, routine training and exercising.

The footprint of the United Utilities incident was the greater part of Cumbria and North Lancashire encompassing our electricity, water and waste water operations (it was a sub regional multi utility major incident) and our available resources were directed across this large area, for most other agencies the critical incident was the flooded area of Carlisle City. This difference of emphasis could have been made more explicit to other agencies and would have aided their understanding of the issues facing United Utilities.

### Interagency Working

United Utilities were represented at Gold and Silver commands. Our representatives found it a positive and worthwhile experience.

### **Comment**

Agencies need to appreciate that United Utilities representative at Gold and Silver in respect of the multi-agency response are not the Gold and Silver commanders of United Utilities but the representatives of these structures whose role is to liaise with other agencies. Our representatives are however delegated to make decisions on behalf of our organization within the scope of what Gold and Silver are responsible for. Experience and lessons from this need to be built into our training and exercising.

### Communications and IT

Communications between Gold and Silver were poor due to the telephone problems resulting from the floods and power loss.

United Utilities staff can access internal company networked systems via the internet. To maximize the sharing of information from UU internet access at these locations is critical.

The IT facilities at Silver were good.

### Power supply issues

Electricity supplies transfer from the National Grid to the United Utilities Distribution Network at the Carlisle Bulk Supply Point (BSP). This site had recently been refurbished and is situated on the site of the original Carlisle Power Station at Willowholme in Carlisle. The site is adjacent to the river Eden and some 9 feet above the high water mark. The only recorded history of flooding was in 1968 when minor flooding of the lower reaches of the site occurred.

On the 8<sup>th</sup> January the river Eden rose significantly due to a combination of torrential rain in the Eden catchments for the previous 48 hours coupled with storm force winds. The combination caused river levels to rise by 11 - 12 feet submerging the Carlisle BSP under 3 feet of rapidly moving water.

Supplies to the City were lost from late on Saturday morning (January 8<sup>th</sup>). Also flooded were thirteen substations in the city (substations are required to step down voltages to levels appropriate for domestic and light-industrial customers). In addition the flooding caused varying amounts of damage to the cabling between substations and properties and also to customers' internal fuses and wiring.

With the invaluable contribution from the Fire Service in pumping out the bulk supply point from the National Grid at Willowholme, the majority of supplies to Carlisle City were restored through Sunday January 9<sup>th</sup>. The table below indicates the pattern of restoration to the remaining properties, mainly in the flooded areas. By restoration it is meant *the full restoration of the United Utilities networks* fed from the substations listed. Some of the networks were restored in part before the dates shown below. Following restoration, many customers were unable to use this power due to damage to their internal electrics requiring attention by their own electricians. United Utilities provided a free checking service on request to customers concerned about the condition of their internal electrics. About 180 customers took up this service. United Utilities provided customers with lists of electricians recognized by the Electrical Contractors Association. United Utilities staff called to all domestic properties in the flooded areas distributing this information (along with compensation claim forms). The United Utilities network was fully restored in Carlisle City by the end of January 14<sup>th</sup>.

Substation location	Date the associated UU network fully restored	Properties affected
<b>Locations where substations were flooded</b>		
Carlisle United	13/10/2005	8
Civic Centre	13/01/2005	5
Dukes Road	13/01/2005	10
Newman School	10/01/2005	20
Thirlwell Avenue	14/01/2005	117
Waller Street	14/01/2005	193

Willow Park	13/01/2005	217
Bridge Lane	14/01/2005	313
Alexanda Saw Mills	14/01/2005	17
Sheep Mount (Sports Pavilion)	10/01/2005	4
Willowholme Ind Est	14/01/2005	22
Willowholme Sewage Works	13/01/2005	1
Chic Park	13/01/2005	1
<b>Substations not Flooded (but UU network damaged by flooding)</b>		
Drovers Lane	10/01/2005	20
Eden Park	12/01/2005	240
Eldred Street	13/01/2005	320
St Aidans	14/01/2005	189
Tilbury Road	13/01/2005	80
Caldewgate	12/01/2005	198
Market Hall	13/01/2005	52
Shaddongate North	10/01/2005	25
Grosvenor Street	10/01/2005	20
Milbourne Crescent Ind Est	11/01/2005	100
Canal Street	12/01/2005	300
	<b>Total</b>	<b>2472</b>

## Comment

Gaining access to vacant properties did cause some minor delays in restoring supplies to inhabited premises on the same network. We are grateful to Cumbria Constabulary and Carlisle City Council for assistance in this activity. A planned multi-agency process to more rapidly identify priorities for restoration (i.e. where is immediate rehabilitation likely/ unlikely?) and co-ordinate access (i.e. tracking down key holders) would have improved the rate of restoration of power supplies.

United Utilities is to review flood defences at critical locations such as Carlisle BSP.

In regard to the wider storm as opposed to flood related damage, following a major event such as this it is typically 24-48 hours before it is possible to fully assess the extent of the damage and provide restoration times. This is due to health and safety considerations in sending staff to locate and repair faults on the high voltage (pylon) network. Only when these have been repaired can we fully identify, prioritise and repair the damage to the low voltage network (poles).

## Resources

United Utilities mobilized its own technical/operations staff from outside the affected areas together with staff from other Electricity Distribution Network Organisations under established industry agreements for handling emergencies. Bearing in mind the severe weather (and warnings of severe weather) covered Northern Ireland, Scotland, The North and North East of England as well as the North West, we fully utilised available staff within the UK.

In addition we also utilised staff from Contract Engineering providers, contracted to our water and waste water business, for domestic clean up and domestic electrical safety check work. We imported non-technical staff to assist in face-to-face customer contact.

In terms of restoration of electricity supplies: United Utilities had almost 100 people working on the restoration of electricity supplies to the flooded areas of Carlisle with a further 20 involved in on-the-ground customer liaison; an additional 200 people were working in the wider Carlisle/North Cumbria area repairing storm damage; a further 320 staff were deployed in the rest of Cumbria and North Lancashire. When the staff addressing water and wastewater events and those staff involved in customer communication and incident management are included, we had close to 1,000 people directly involved in response and recovery.

There were no issues surrounding the availability of materials.

## **Comment**

In terms of the non-technical work such as provision of clean-up services and face-to-face contact, agencies should investigate how best to jointly coordinate and utilise resources based on our experiences of this incident.

## How prepared were you for the emergency?

Given the extreme nature of the events and the degree of unexpectedness, we are generally satisfied with our level of preparedness and timeliness of response.

## What went well

- Inter-agency cooperation at Gold and Silver.
- Mobilising resources into the affected area.
- Coordination of United Utilities staff on the ground (both technical and customer liaison).
- Operational response and resource mobilization.
- Face-face customer contact.

## What did not go well

- Provision and interpretation of weather information.
- Timing of activation of Gold and Silver.
- Handling in-bound communications from customers.
- Providing information on restoration times.
- Coordination of information of affected areas into a single multi-agency resource.

## Lessons learnt

- To brief UU managers on the lessons learnt by those involved directly in multi-agency incident management to build a pool of senior staff who can support this activity in the future.
- Ensure future training incorporates the lessons learnt in respect of recognition, alerting and response/recovery.
- Review efficiency of information gathering to get best information to customers as promptly as possible.
- Need to better share information on affected areas with other agencies.

## **ORGANISATIONAL DEBRIEF – NORTH CUMBRIA PRIMARY CARE TRUSTS**

For further information contact Dr Catherine Gregson, Department of Public Health at [catherine.gregson@ncumbria.nhs.uk](mailto:catherine.gregson@ncumbria.nhs.uk)

This report comprises the debrief of the three North Cumbria Primary Care Trusts:

- Carlisle and District primary Care Trust
- Eden Valley Primary Care Trust
- West Cumbria Primary Care Trust

### Alerting procedures

Public health and Health Protection Agency staff on call the weekend of 8<sup>th</sup> and 9<sup>th</sup> January 2005 were not formally alerted of the incident. The staff made their own enquiries on the morning of the 8<sup>th</sup>. When the scale of the incident became clear, they made their way to Carleton Hall, Penrith. Similarly, North Cumbria Primary Care Trusts were not formally notified of the incident. The senior nurse on call made contact with the police and the primary care trusts subsequently established a base at Carlisle Castle.

### Search and Rescue

The North Cumbria Primary Care Trusts staff would have welcomed a list of people who had been rescued. Staff would have also welcomed this information being available to the public.

### Reception Centres/Welfare

North Cumbria Primary Care Trusts staff found that a lack of telephones in reception centres hindered communication with reception centres.

We would recommend that consideration is given to the use of NHS facilities to support reception centres.

### Public Warning/Media/Public Information

North Cumbria Primary Care Trusts staff working over that weekend welcomed the support of other agencies in the preparation and distribution of leaflets giving health advice. Radio Cumbria was an excellent means of getting messages to the public. However, we would recommend that in future consideration is given to the use of billboards and megaphones for communicating with the public.

### Control

NHS staff working at Silver Command at the Castle found that the noisy environment in which briefings took place made communication less effective.

### Inter-agency working

NHS agencies worked well together and with agencies beyond the NHS. However, we recognise that the emergency doctors service, CueDoc, and the Mental Health and Learning Disabilities Trust need to be better integrated into the implementation of our major incident plans.

### Communications and IT

The North Cumbria Primary Care Trusts have identified that we must improve communication between Gold and Silver Command in the future. We would ask that serious consideration is given to accommodating Gold and Silver Command at a single location. We know that Cumbria Ambulance Service established a regular update between Gold and Silver Command at hourly intervals. We recommend that the NHS should consider hourly contact between Gold and Silver Command as standard.

The North Cumbria NHS Informatics Service has produced a detailed incident report for the weekend of 8/9<sup>th</sup> January. Two of its key findings are that standby generators are required at key locations to maintain working computer services and that formal and informal on call procedures need to be reviewed.

### Power supply issues

North Cumbria Primary Care Trusts have identified that on call staff need access to telephones which do not require an electrical supply to function. Similarly, nursing and residential homes should have telephones which can function during a power cut.

The NHS also needs to give consideration to the number of generators it requires to ensure the NHS can function through a prolonged power cut. The NHS also needs to consider how patients who rely on oxygen concentrators in their homes will obtain oxygen cylinders in the event of a lengthy power cut.

### Resources

North Cumbria Primary Care Trusts have identified the need to ensure sufficient staff are available during incidents to allow staff to undertake shifts of a maximum of six hours.

### Response preparedness

North Cumbria Primary Care Trusts had undertaken training in the major incident plan only a few weeks prior to the flooding of Carlisle City centre. This training proved to be an excellent foundation for meeting the demands of the incident.

North Cumbria Primary Care Trusts are confident of the quality of the response provided by our staff. However, we recognise that further training in the implementation of the major incident plan will be helpful.

### What went well?

The North Cumbria Primary Care Trusts are proud of the way our staff responded to this incident. We have congratulated our staff on their professionalism and their commitment to meeting the needs of residents following the flooding.

### What did not go well?

The North Cumbria Primary Care Trusts hope that a robust system for informing the Primary Care Trusts of an incident where our resources are needed is put in place.

Communication between Gold and Silver Command needs to be improved.

### Lessons learnt

This incident highlighted the value of the work that has gone into the development of the North Cumbria Primary Care Trusts major incident plans. It also highlighted the importance of the training which has taken place with our staff. However, we recognise that we cannot be complacent and further training and preparation will be required.

We believe that consideration should be given to accommodating Gold and Silver Command at a single location.

North Cumbria Primary Care Trusts need to ensure that we are prepared for any future lengthy power cuts, including making arrangements for patients who rely on oxygen concentrators in their own homes.

## ORGANISATIONAL DEBRIEF – HEALTH PROTECTION AGENCY

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### Alerting procedures

The alerting procedures to inform public health are via the ambulance service. On this occasion, there was concern from the Director of Public Health for Morecambe Bay PCT and this preceded any formal alerting procedure. The ambulance service (Cumbria Ambulance Service) at no point formally notified the incidents to public health on call. However, this did not affect public health resource deployment as separate information channels were established and when the scale of the incident became clear public health deployed to Gold control at Carleton Hall, Penrith.

### Search and Rescue

Search and rescue strategies were discussed within Gold Control and other meetings. The public health input into this area was strategic and from that point of view the decision making processes seemed rational, practical and inclusive and characterised by consensus rather than debate and disharmony.

### Reception and Welfare Centres

This area was left to the broader health response at tactical and operational level, once the decision to open reception centres had been taken within Gold Control. This was wholly appropriate and put decision making at the right locus of control.

### Public Warning, Media and Public Information

This is one area that went critically well for public health. There was close working with the police Press Officer who arranged the relevant interviews and press releases with local media. Full use was made of Radio Cumbria as a means of getting messages across to the public. Use of internet web sites was prominent during this event and was useful as a means of getting detailed guidance on pollution and other issues to the public. Leaflets were also prepared and distributed giving health advice with assistance from other agencies. This, I think, was one area that public health input with assistance from other agencies was particularly successful and from feedback the leaflet was received by a large section of the target audience within the public.

### Control

It was commented that this event was characterised by a good atmosphere and harmonious working and by and large consensus working. This is difficult to achieve in a strategic situation when considerable pressure is on staff. Control and command situations can seem oppressive to staff not used to these regimes but the balance was right and was aided by the fact that the public health staff had participated previously in multi-agency exercises and as such had the relevant experience. The arrangements for Gold meetings worked well with an inner core of representatives and an outer ring of staff from agencies usually represented in the inner core but

attending for briefing purposes. The frequency of the meetings allowed this not to seem too onerous or problematic and largely saving briefing other staff after Gold meetings. In general the staff at Penrith adhered to purely strategic issues and passed tactical and operational work to Silver control and operational staff.

One problem was access to the building as many staff found difficulty and delay in getting into the building.

### Communications and IT

This was a problem area. We were dependent in the early stages on our own resources and when police resources became available. Access to the internet was very restricted and telephone modem access to communications was both slow and tedious. Printing documents was also problematic as they had to be communicated to another part of the building to be printed out. Mobile phones within police headquarters were not ideal - there were numerous 'black-spots' within the building and these were used as the main method of communication (email, text and voice) by HPA/Public Health staff. We believe this is one area where there is scope for improvement.

### Inter-agency Working

The health sector representing the Acute Trusts, Primary Care Trusts, HPA and Ambulance Trust worked well together and formed an informal health cell within Gold that facilitated health decision making and communication. Since the event, we have considered the role of the Mental Health Trust in such an event and would like to see the trust more integrated in future events with greater communication. The Environment Agency representative was key to many of the decisions taken at Gold and acted as an excellent source of health related advice.

### Power Supply Issues

The power supply issues were some of the most problematical in deciding how to deal with vulnerable people without power. We identified several problems;

- Identification of vulnerable people living in their own homes (home dialysis records, those needing electricity for equipment etc. No reliable data existed in these areas and this is an area worthy of consideration.)
- Identification of nursing and residential homes should be proactive, in the event this took a little time to find this data
- It may be worthwhile having a strategy for vulnerable people undergoing emergency action such as sheltering or evacuation or support because of a vital amenity (water, power)
- Power supply failure meant that mobile telephones were unreliable and fixed systems dependent on electricity were also not functioning.

In the event despite these difficulties, I believe that most people were supported adequately for the duration of the outage and that the decision making at Gold whilst not being perfect was optimised for the circumstances because of the good open relationships between agencies at Gold.

## Resources

Resources could never be sufficient in the early stages of such a large incident and the issue is really the effective deployment of the resource that is available. In the areas that public health / health had an input, the response was commensurate with the situation. Where resources were not adequate, initially we worked with other agencies to prioritise where these resources should be allocated for maximum health or welfare gain and this decision making was taken at designated sub-groups of Gold Control.

Concerns were expressed about the lack of administrative support from the organisation and the needs of public inquiries after such events. There are electronic solutions to address some of these issues. The audit trails for decision making during this event were weak and this needs addressing as a matter of urgency.

## Response Preparedness

Whilst public health has a rota for out of hours for such events it depends on the good will of staff for its continued response. Public health was able to deploy to Gold Control with 1 hour of being notified and had a team by the afternoon of the first day. The resource deployed was sufficient for the task. A rota was established to allow for an indefinite presence at Gold on the first day.

## Learning Points (Things that went well / badly)

The loss of electricity and telephone is not one of the situations that had been considered in great depth by some organisations so details of the lessons learnt from the event and management issues which arose within the organisation are being disseminated.

Previous local links with media were important and we used a member of staff who the public knew and related to for media work. (Local credibility and trust)

The previous training exercises and incidents carried out in Cumbria ensured staff were familiar with personal and agency modes of working and allowed for a more effective, quicker response. Staff should be encouraged to attend and become familiar with incident management issues at exercises as the benefits are evident in real incidents.

## Surge Capacity

The Public Health response will be dependent on the good will of its staff for the foreseeable future to provide a sustained response and this remains a concern. In this event we demonstrated an adequate immediate response and the ability to sustain this level of response indefinitely albeit dependent on staff goodwill.

## **ORGANISATIONAL DEBRIEF – MARITIME AND COASTGUARD AGENCY (NORTH WEST ENGLAND AND NORTH WALES AREA)**

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### Introduction

The aim of this report is to review the events of 8<sup>th</sup>/9<sup>th</sup> January, in which Coastguard resources were tasked to assist other authorities during severe flooding in the City of Carlisle. This report will also review the support mechanisms currently in place for MCA staff and make recommendations on procedures and equipment alike.

### Background

The City of Carlisle lies within the Eden Valley in North West Cumbria where the Rivers, Caldew, Petteril and Eden converge on the City.

The Environment Agency had issued a number of flood warnings nationally with Meteorological Office predictions, indicating the possibility of rainfall between 25 and 100 mm for the period 0900 hours GMT Friday 7<sup>th</sup> January until 0900 hours GMT Saturday 8<sup>th</sup> January throughout Cumbria.

Hydrographic Office tide tables predicted a tidal range of between 8.5 and 10.4 metres.

Forecast wind speeds and direction were not unusual for the location or time of year.

### Operations Room/Duty Staff

The Liverpool RCC duty night watch of 7<sup>th</sup>/8<sup>th</sup> Jan was made up of 4 officers - 1 x Watch Manager (WM), 1 x Watch Office (WO) and 2 x Coastguard Watch Assistants (CWA), one member of the watch had booked annual leave for the round. The partner RCC (Holyhead) night watch was made up of 1x WM, 1x WO, 2 x CWA.

The RCC Liverpool day watch for Saturday 8<sup>th</sup> & Sunday 9<sup>th</sup> Jan watch level was 1xWM, 1xWO, 2xCWA, and that of RCC Holyhead as 1xWM, 1xWO, 3xCWA.

The Area Duty Officer (ADO) for the period was the Area Operations Manager Northwest England and North Wales, with the National Duty SAR Officer being the MCA Head of SAR.

Carlisle falls under the jurisdiction of the Sector Manager Solway who, as per his role profile, was available to provide operational support as required.

All the Coastguard Rescue Teams within the area were acknowledged to be 'operational' with no major deficiencies in equipment or staff reported.

## Incident details

080319 Universal Co-ordinated Time (UTC) RCC Liverpool Operations Room received a telephone call from Cumbria County Council Emergency Planning Officer warning of severe weather and inquiring into tide times for the Solway Firth in addition to the types and numbers of resources available to assist during floods (including RNLI resources). EPO also indicated that these resources may be required at 'first light'.

080406 UTC: Cumbria Fire and Rescue Service (CFRS) requested Coastguard boat assistance due to large scale flooding in the City of Carlisle. Coastguard units were asked to rendezvous at Greystone Road. At this time no indication of the number of persons involved or the severity of the flooding was discussed.

080408 UTC: Burgh By Sands (BBS) Coastguard Rescue Team (CRT) paged.

080413 UTC: BBS CRT Station Officer (SO) briefed and requested to proceed to Greystone Road with rescue boat and crew, to assist CFRS. At the time the SO requested that his team members were informed of localised flooding in the Burgh area which may delay staff proceeding to the Coast Rescue Equipment (CRE) station.

080520 UTC: BBS rescue boat on scene and commences 'ad hoc' tasking as requested by Police and CFRS personnel. At this time the ADO was informed that a CG resources were tasked/operating out-with their normal sphere of operations. Similar reports received from RCC Holyhead

080809 UTC: Whitehaven CRT requested to assist Cumbria Police to clear trees from main road.

081140 UTC Annan SO tasked to take additional fuel, for rescue boat, to Carlisle as fuel supplies within the city were disrupted due to power failure. At this time Rescue Helicopter 177 was tasked to the Carlisle arena via the Air Rescue Co-Ordination Centre Kinloss (ARCCK). Annan SO was requested to provide communications link between authorities on the ground and the Rescue 177.

081247 UTC: Nith Independent Rescue boat tasked to Carlisle to assist in the evacuation of numerous stranded persons.

081338 UTC: Workington RNLI inshore lifeboat tasked to Carlisle to assist in the evacuation of numerous stranded persons.

081615 UTC: RCC Liverpool reports loss of Calbeck aerial site due to power failure. Maryport CRT tasked to Calbeck aerial site to provide communications link with operational CRTs, helicopters and RCC Liverpool. NDSARO inform that DAO proceeding to Carlisle.

081643 UTC: Walney Island CRT tasked, with General Purpose (GP) Boat, to Carlisle to relieve BBS CRT and to continue with the evacuation of numerous stranded persons.

081721 Portling CRT tasked to Carlisle to provide communications link to relieve BBS CRT and to continue with the evacuation of numerous stranded persons.

081735 UTC: Millom CRT tasked to assist with the evacuation of numerous stranded persons.

082143 UTC: Calbeck aerial reactivated Maryport CRT stood down and returned to station.

082210 UTC: BBS CRT stood down and returned to station.

082231 UTC: Workington RNLI lifeboat stood down and returned to station.

082307 UTC: Annan SO stood down and returned to station.

080636: Portling CRT stood down and returned to station.

080756 UTC Walney Island and Millom CRTs stood down and returned to station.

080800 UTC: Duty Area Officer stood down and returned to station.

090941 UTC Walney Island CRT re-deployed to Carlisle to provide safety cover and to undertake ad hoc tasking as requested by Silver Command.

091649 UTC: Walney Island CRT stood down and returned to station.

080520–090600 UTC: Between this period CRTs and boats rescued/assisted approximately 400 persons.

### Search Area

This incident was unique in so much that CRTs are not used to operating inland and in areas with which they have limited local knowledge. The general area proved hazardous with numerous submerged objects which had the potential to damage personnel and equipment (in particular boats).

The main search area was in the vicinity of Warwick Road, St Aidans Place, and Victoria Road. Although the Willowholme and Denton Holme Districts were also searched periodically.

Good use was made of the street maps provided at silver command at Carlisle Castle and photocopies of smaller search areas (i.e. designated streets) were utilised well by the CRTs.

Health officials had, by Saturday night, produced a list of 22 vulnerable persons, on which a watching brief was maintained throughout the night.

Details of those rescued/assisted were, initially, not conveyed to Silver command which resulted in additional tasking following reports from members of the public that friends/relatives had not been seen/in contact since early morning.

Effective use was made of the CGs on scene with the CRT members rotating between boat operations, communications links, foot patrol with other agencies and rest periods.

### Communications

All communications for surface, air and shore-side (foot) units were conducted on VHF CH0. Although not ideal, due to the number of resources tasked, this was the best arrangement possible due to the loss of the Calbeck aerial. The tasking of Maryport CRT to provide interim cover for the Calbeck site proved invaluable with communications being restored between the RCC and operational units. SO Annan took responsibility for the on scene co-ordination during the loss of Calbeck.

Loss of the mobile and terrestrial telephone system, required the DAO to communicate through Maryport CRT causing a delay and adding additional traffic to the already busy VHF channel 0.

### Log Keeping and Incident reports

The Vision log content was well maintained throughout the incident and all relevant information contained within, with the exception of the period when communications was lost due to the loss of Calbeck.

Timely weather information was provided to DAO at Silver command when the facsimile system was operable.

An Operational Incident Report (CG15) report has been completed into this incident and a de-briefing session held by Solway Sector Manager. A duty Watch de-brief has been conducted by both WMs. The findings and concerns raised during these sessions have been included in this final report.

### Media

The impact of the media interest during this event fell mainly to Gold Command at Police HQ, Penrith. However MCA Duty Press Officer did arrange periodic radio interviews with a number of national radio stations. These did not impact on the operational efficiency of CG teams and were well managed by the MCA Duty Press officer. Limited enquiries were directed towards RCC Liverpool and any questions were answered factually.

Post incident the media coverage for CRTs was exceptional, in particular the local press (News and Star) and through the BBC.

Nigel Ellis from the Government News Network (GNN) was commissioned by MCA to provide generic coverage of the incident for all agencies in association with their internal Press Officers.

### Watch Handover

The watch handover took place between 0640 and 0700 and was comprehensive with nothing appearing to be lost in the transition from one watch to another, similarly with the handover the following evening.

## Equipment

Navigation by CG boats, within the City Centre, proved difficult with little or no reference to submerged hazards. The normal means of navigation (compass, GPS or course and speed) were wholly inappropriate for the environment and in the main navigation was purely visual. This in itself was difficult due to the 'total blackout' conditions within the city.

In general PPE met the expectations of the user and proved to be 'fit for purpose'. However a number of Rescue suits (4 to date) required replacing after coming in contact with hazardous material (effluent).

Two Nightracker searchlights were lost during operations with another being lent to Merseyside Fire and Rescue Service Special Rescue Team and being returned after their commitment to the incident had finished.

One Icom handheld marine band VHF radio became inoperable due to becoming submerged.

Provision for ensuring search teams had the facility to get food and beverages was not in place for a considerable period. Many volunteer staff worked for protracted periods in difficult conditions with very little or no access to hot beverages save those volunteered by other authorities. Given the duration of this incident these needs were insufficiently provided for. This was primarily due to the extraordinary factors, in the main the complete loss of power within the city, making it difficult to obtain provisions.

## Conclusions

The initial call to RCC Liverpool, was 'for information only' and did not convey the gravity of the situation, at no time was it indicated that the major flood plan was to be activated.

Additional fuel for the CG boats should have been considered at a much earlier stage once it became obvious that this incident was to become protracted.

Relief crews could have been tasked earlier, however in mitigation the Duty WM was considering the 'wider picture' with the forecast inclement weather and concern with regard to coastal flooding in the county.

The Duty Watch Manager had no indication of the number of persons potentially requiring evacuation.

The marine band VHF radio network proved to be robust and reliable. The difficulties caused by the loss of the Calbeck Aerial site were soon resolved by placing a CRT as a relay station.

PPE equipment issued to staff proved to be 'fit for purpose'.

In the initial rush to evacuate persons, casualty details were not taken/passed on and this contributed to the confusion as to the whereabouts of a number of persons.

Without the use of 'Area' Mobile Response Unit (MRU) the DAO would not have been able to travel to Gold/Silver Command, which because of the loss of terrestrial and mobile communications was imperative.

### Recommendations

MCA ensure that the Cumbria County Flood Plan requires that we are informed as early as possible of any potential request for assistance. This will allow the DAO to plan for the logistical difficulties that arise with inland tasking.

Duty WMs are to interrogate 'for information only' calls as they would for any 'normal' emergency.

Consideration must be given to providing a minimum amount of 'basic' emergency rations (i.e. Hot Cans) to be held at Sector bases to ensure staff at least have access to these facilities in the short term until such time as arrangements can be made at the scene of any incident.

Each CRT should be issued with, at least two, unbreakable flasks.

During any future 'inland' tasking the provision of relief crew and spare fuel should be considered during the initial Risk Assessment. This should be through consultation with Duty WM, SM and SO.

NW England & NWales Area to purchase 'waterproof' writing equipment to allow boat crews/CRTs to record details/actions during all operational tasking. This will assist in keeping records should communications between units and the RCC be lost.

## ORGANISATIONAL DEBRIEF – A FLIGHT 202 SQUADRON

### Communications

- Poor communications hampered almost every aspect of the search, rescue and recovery phases.
- Consideration should be given to the use of emergency satellite communication phones.
- The only reliable link between ground parties and the rescue helicopters was the Maritime & Coastguard Agency mobile unit in the city. All of the emergency services should have at least one common channel.

### PR

- PR support from trained personnel was invaluable. These personnel enabled operations staff to concentrate on their primary tasks without media distractions.
- PR personnel should be deployed as soon as possible at all command levels.

### Mapping

- Mapping in fine detail was not readily available at all levels. This hampered the rescue effort as rescuers could not be readily directed to a location with sufficient accuracy to immediately find the casualties / survivors.
- All rescue agencies should have recourse to common map stocks of standard scales.

### Overview

- During the course of 2 days, our aircraft flew several sorties to facilitate news gathering and general reconnaissance. Some of this material was never used (due to TV studios being flooded). This material would have been invaluable to commanders on the ground, many of whom had difficulty, initially, in assimilating the scale of the problem.
- Consideration should be given to taking senior commanders on a brief aerial tour of major disasters (following immediate life-saving operations, of course). The negative aspect of time spent 'out of the office' would, in most cases, be greatly outweighed by the exponential increase in situational awareness.

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## ORGANISATIONAL DEBRIEF – GOVERNMENT OFFICE FOR THE NORTH WEST

For further information contact Julie Dawber, GONW at [rrt.gonw@gonw.gsi.gov.uk](mailto:rrt.gonw@gonw.gsi.gov.uk)

### Introduction

Government Office for the North West (GONW) conducted four separate de-briefs involving central government departments and GONW staff (GONW Regional Director; GONW Recovery Group and the Regional Resilience Team (RRT)). This document provides a summary of those de-briefs together with the learning points.

### Pre-Alert

The severe weather warning issued to RRT via central government early on Friday 7<sup>th</sup> January included the NW of England although the NE was highlighted as being at greatest risk. Later weather warnings were faxed to the office by central government after everyone had left for the evening. GONW are not on the Environment Agency's (EA) flood warning system and as a result did not receive the flood warning notification directly from EA. Instead, the warning was received much later via central government. It was agreed that there needed to be more direct mechanisms in place to ensure that severe weather and flood warnings were brought to the attention of RRTs quickly.

### **Recommendations:**

- Cabinet Office, DEFRA and GONW RRT to check that existing systems for identifying and notifying RRTs of critical warnings are sufficiently robust.
- GONW RRT to agree direct alert mechanisms for flood warnings with EA.

### Alert Stage

GONW were not alerted to the incident by Cumbria Constabulary, however GONW RRT had proactively contacted Gold early on Saturday morning. RRT then provided a verbal report to the Cabinet Office and ODPM. There was no formal invitation to attend Gold, but when GONW offered to attend, this offer was taken up. There needs to be clarity/formalisation of alerting procedures with Whitehall departments, key GONW staff, and other agencies as some would have liked to have been contacted earlier.

### **Recommendations:**

- Information on the GONW role (including attendance at Gold) and alerting procedures needs to be reviewed and circulated to partners.
- Protocol for alerting central government departments, key GONW staff, and the other agencies to be reviewed, agreed and circulated.

## Media/ Public Information

It was unclear what mechanism was in place to ensure that central government messages were consistent with those being issued at the local level. GNN had been present at Gold in the initial phase but at the request of the Highways Agency and the Coastguard. It was reported that GNN are required to respond in the event of a major incident free of charge for the first 24 hours and that thereafter the Lead Government Department should pick up costs.

Whilst GONW were not called upon to undertake media interviews, key GONW staff should be media trained in the event they are required to do interviews when ministers are not available.

Consideration should be given to utilising the GONW website as a way of providing information to the public.

## **Recommendations**

- Terms of GNN engagement be clarified and communicated to partners.
- Procedures for alert to be agreed between RRT and GNN (as above).
- RRT to discuss options for media training with GNN and arrange training for staff as required.
- Consider publishing public information on the GONW website.

## Inter agency working

Elliot Morley visited Carlisle on Sunday 9<sup>th</sup> January. The GONW Regional Director escorted the Minister. However, GONW had not been notified of Mr Morley's visit through agreed channels i.e. Private Office contacting GONW Duty Officer.

The High Volume Pumps (HVPs) purchased by ODPM were not yet operational in Fire Brigades. They were located at the Fire Service College, Moreton-in-Marsh, Gloucestershire for instructor training and were dispatched as a result of communication between RRT, ODPM and Cumbria Fire and Rescue Service. HVPs will become operational shortly within fire brigades and will be mobilised in line with normal Fire Service Command and Control Protocols in future.

## **Recommendations**

- ODPM to remind Private Offices of out of hours procedures for notifying GOs of Ministerial visits.

## Briefing

The cross cutting reports produced from Gold by RRT were fit for purpose and were well received by Central Government Departments and other agencies.

It was suggested that a second un-classified version of the brief would have been useful for wider distribution.

It was not always clear how many other responder bodies were providing briefing to central government departments. This is an area that needs to be reviewed to

ensure consistency, and avoid duplicative effort. For example, due to timing differences, it was noted that the EAs briefings for DEFRA, and the RRT reports contained inconsistencies in terms of the statistics used.

The RRT suggested that future reports might include short statements on **all** areas of the response that may be of interest to central government departments. Health, for example, had not been included in the report because the local response was working well and the challenges presented were considerably less than that for other areas. However, in retrospect, the report would have been more comprehensive with a statement to this effect.

It would also have been helpful to identify the key changes in successive briefs.

Partners and the RRT felt that it would have been beneficial to continue producing regular reports beyond the 2 weeks. Failure to do so resulted in numerous requests for briefing from central government departments and Ministers.

The issue was raised that as Gold concentrated on Carlisle, this meant that the impact of the storms on the rest of the County and beyond were not covered.

## **Recommendations**

- A core and optional copy list to be incorporated in the RRT operating manual.
- RRT to select from list. Cabinet Office to check all relevant Government Departments have been included and consider whether No 10 should be notified.
- RRTs to identify/highlight key changes in successive briefs.
- Reports to include sections on all areas of interest to central government departments such as a standard check list of headings with 'no impact or everything working well' used rather than having no mention of the issue.
- Reports to be produced for a longer period – this may be up until the point at which GO intervention returns to the normal levels.
- A 2<sup>nd</sup> briefing with sensitive/restricted data removed should be produced for wider distribution.
- ODPM to prepare reports with contributions from RRTs for those incidents that impact on more than one region.
- RRTs to agree procedures for ensuring consistency of briefing with the EA.
- Review which responder bodies provided briefing to central government and identify how to bring some structure to this process – i.e. avoid duplication/omissions/inconsistencies.
- RRT staff based in the operations centre at GONW to pull together any wider briefing on the affected area (anything not covered by Gold briefings).

## Communications/IT

Problems were faced with some of the equipment RRT used to establish a temporary office at Gold and the operations centre at GONW. Consideration should have been given to relocating the RRT to GONW operations room, to focus on incident management, avoiding distractions from routine business.

Concerns were raised that RRT colleagues present in Gold were being interrupted during Gold briefings.

Power supply failure in Gold had highlighted the need for back up power supplies or alternative accommodation. This needs to be considered for GONW offices.

A generic RRT email account was set up to streamline communications, but a lack of advance training/preparation for remote users/laptops meant that it was not used.

The incident logging database provided by GO-East was used for the first time in the GONW operations centre as a pilot (no prior testing had been carried out). Whilst it was a useful audit tool for incoming / outgoing information / outstanding actions, the system needs refining and protocols established for the type of information that needs to be logged.

For the first few days of the incident, RRT in Cumbria did not have access to maps in Gold, and whilst, Silver Command did have a GIS system, Gold did not. The resilience GIS laptop would have provided clear benefit both in Gold and in the GONW operations room for the recovery meetings. However due to a combination of factors it was not used.

## **Recommendations**

- As part of the GONW business continuity plan, GONW need to consider back up generators and identify/progress alternative accommodation which is outside local power grid area.
- Provision of emergency kit for off-site work covering IT, stationary, and personal needs should be reviewed.
- Issue timings of Gold meetings etc to key Government contacts to prevent interruptions to RRT staff in Gold.
- The regional operations centre should be the first point of contact into GONW during an incident.
- Review incident logging database, and produce a protocol for its use.
- Need to establish a protocol for use of the single GONW emergency e-mail account, and provide training for remote users.
- Need to establish a trigger level for setting-up of the GONW operations room..
- Decide on whether the GIS laptop should be deployed at Gold or the GONW operations room, and ensure that the relevant personnel are fully trained and familiar with its use.

## **Resources**

The estimated current cost for GONW is £16k. Whitehall colleagues have been asked to consider whether there is a mechanism in place for cost recovery.

Concerns were raised that the Director identified to lead on the recovery group was from the Neighbourhood Renewal Group. This was seen as potentially problematic from a business continuity perspective as resources from this team (in particular Cumbria area team) were being heavily utilised in the recovery work. Similarly the RRT staff located at the GO were heavily relied on to provide secretariat support for the GONW recovery group. Therefore need to check and review sufficient and appropriate resources are allocated to GONW for the incident, the recovery, and normal office business.

The majority of RRT staff stood down from the incident, handing over responsibility for recovery issues to the wider GO when Gold command formally handed over responsibility for the recovery phase to Carlisle City Council on Thursday 13th January. Whilst this course of action was accepted, this policy needs to be agreed and consideration given to including this in guidance on the regional response.

Concerns were raised that GONW was too reliant on Cumbria police for transport during ministerial visits.

## **Recommendations**

- Carry out a quick review of resources every day and a major review of resource allocation after 1 week / 10 days. Consider using an independent person (other GO Regional Director) to challenge the review and consider whether another GO could support back office functions from their office.
- Need to establish who should provide secretariat support to the GONW recovery group.
- Agree that the cut-off point for RRT is when the incident moves from the Response stage to Recovery, but recognising that there will be a transitional period whilst recovery management issues are fully integrated into the wider GO. Consideration needs to be given to including this in guidance on the regional response.
- Cabinet Office/ODPM/Lead Government Departments give consideration to cost recovery issues.
- Consider whether relying on the police for Ministerial /VIP transport is sufficient or should we have arrangements in place for the provision of different types of vehicles at short notice.

## What went well

Overall, and notwithstanding the learning detailed above, it was felt that the response had been handled very well. Subsequent feedback from the Cabinet Office, ODPM, DEFRA and DTI supported this. The daily briefings issued to central government are now being used as an example of good practice. The pro-active role GONW adopted in assisting the LAs in the recovery process, which is on-going, was also praised.

## ORGANISATIONAL DEBRIEF – GOVERNMENT NEWS NETWORK NW

For further information contact Nigel Ellis, GNN at [Nigel.Ellis@gnn.gsi.gov.uk](mailto:Nigel.Ellis@gnn.gsi.gov.uk)

The GNN view was from Cumbria Constabulary press office.

### Alerting procedures

- GNN was not formally alerted to the emergency despite being on the alerting cascade for events such as an incident at Sellafield. It is probable there was no formal alert given but this is an area to tighten up. GNN became involved on the afternoon of Saturday 8<sup>th</sup> January after a call from the Highways Agency, some 24 hours into the incident. A press officer was in place at Cumbria Constabulary Headquarters within 12 hours but could have been there earlier.

### Public warning, media, public information

- National and local media interest was intense at the beginning of the emergency but the Cumbria police press officer built an alliance of police colleagues and outside organisations including GNN to deal with the huge demand for information and interviews. The flexibility of Cumbria police officers of all ranks in dealing with the media in the most difficult circumstance deserves the highest praise. There was a regular stream of advice being passed to the public.

### Inter-agency working

- All agencies that engaged with GNN did everything they could to help despite being under intense pressure themselves. The familiarity that GNN has with many agencies in Cumbria and beyond due to our long term involvement in emergency planning undoubtedly paid dividends.

### Communications and IT

- It would have been helpful to have had more telephone lines into the press office especially when the problems with mobile phones were at their worst.

### Resources

- Funding sources for GNN activity in a major emergency remains an issue. Our presence was under-pinned by the Highways Agency and the Maritime and Coastguard Agency although other clients subsequently came on board. However, it was the Highways Agency initial promise of funding that was key to our presence.

### How prepared were you for an emergency

- GNN had a press officer at the police headquarters within 12 hours of being requested to go and could have been present earlier. The presence could have been quickly strengthened had it been necessary.

### What went well:

- Co-operative working between an ad hoc group of press officers and police worked well largely due to the prevalent attitude which was to help the media in order to facilitate the public warning and information messages that had to be issued.

### What did not go well:

- Potential flaws were revealed in the traditional reliance on the local media, especially BBC local radio, to inform the public in an emergency. The lack of electricity meant that some people were unable to hear BBC Radio Cumbria output, Border Television was off air for some of the time and it took the Evening News and Star time to print elsewhere. Overall the local media, as usual, did an excellent job but there clearly needs to be some sort of “Plan B” for dealing with power cuts – holding an emergency stock of battery powered radio perhaps. The media will want to review its own resilience arrangements. By and large, the national media seemed satisfied with what was done for them.

### Lessons learnt

- Training and exercising together pays dividends when a real emergency strikes. For GNN, funding is always an issue. Media interest is always huge and needs plenty of experienced people to cope. One area always difficult to deal with during the acute phase of an incident is having someone available to take a longer-term view into recovery. Had more of this resource been available it might have helped nip in the bud negative issues such as problems faced by business. Media monitoring: Resources both human and technical, i.e. televisions, video recorders and radios, were stretched thin although GNN helped out from Manchester. Being able to respond to media coverage is vital but it takes a good deal of resource to do it effectively. Perhaps a mutual aid arrangement could be established whereby partners less affected by the emergency take on different elements of monitoring which could then be shared by all.

## ORGANISATIONAL DEBRIEF – HIGHWAYS AGENCY

For further information contact Bob Baldwin, Highways Agency at [bob.baldwin@highways.gsi.gov.uk](mailto:bob.baldwin@highways.gsi.gov.uk)

### Introduction.

The Highways Agency (HA) has responsibility for managing and maintaining the motorway and trunk road network in England. AmeyMouchel are the Highways Agency's supplier for Cumbria and North Lancashire (Area 13).

Since 2004, the Highways Agency has been categorised as a Category 2 responder under the Civil Contingencies Act 2004. The Act requires that category 1&2 organisations come together to co-operate and share relevant information. The Highways Agency has met with Cumbria County Council Emergency Planning Unit and Cumbria Constabulary to discuss what assistance it can give in the event of a major incident in Cumbria. As a result, the Highways Agency is now included on the alerting cascade for such incidents.

### Network Control Centre

AmeyMouchel operate a 24 hours Network Control Centre (NCC) to co-ordinate a response to incidents on the Highways Agency's network in Area 13. The NCC is located in the AmeyMouchel offices at Skirsgill Depot, Penrith. However, during the weekday period 2000 – 0600 and at weekends, the NCC facility is run from AmeyMouchel's offices in Birmingham (under the same contact telephone number). In the event of a major incident occurring within these periods, AmeyMouchel would open up the Penrith facility to manage their response.

On the night of 7<sup>th</sup>/8<sup>th</sup> January 2005, the Birmingham facility was in operation and received the first call from Cumbria Constabulary. The Penrith facility became operational from 0515 on the 8<sup>th</sup> and was manned by the NCC Manager and the Duty Officer.

### Incident Details

The main problems facing the Highways Agency on the 8<sup>th</sup>/9<sup>th</sup> January were in relation to storm damage across the motorway and trunk road network. In particular, in excess of fifty trees were blown down and were blocking or partly blocking trunk roads including the A66, A595 and A590. Twenty-three heavy goods vehicles (HGVs) were blown over on the A74 and M6.

Much of our effort was directed to making safe the A74/M6 in relation to the blown over HGVs. For those HGVs lying in the carriageway, protection was given to those vehicles using crash cushions and priorities for their recovery were agreed with Cumbria Constabulary.

The M6 was closed southbound between Junctions 44 and 43 for a period of approximately four hours up to 1100 hours due to an overturned HGV.

The A66 was closed at Temple Sowerby for almost two hours during the early hours of the 8<sup>th</sup> January when the River Eden overflowed onto the road. The river level dropped by approximately 0600 hours and the road was re-opened.

From the Highways Agency's perspective, the incidents required a Tactical level of management and a Silver Control was set up at the Penrith NCC and manned accordingly to manage the incidents.

At 0801 on the morning of 8<sup>th</sup> January, Cumbria Constabulary initiated Gold Control in Carleton Hall and the Highways Agency was invited to attend. Representatives from AmeyMouchel attended on behalf of the Highways Agency and kept the Highways Agency's Area Manager informed of events throughout the duration of the emergency.

As the majority of the flooding within the Carlisle area was off the Highways Agency's network, their role within the Gold Control was one of assistance/mutual aid.

### Equipment

At the request of the various agencies involved in the emergency the Highways Agency provided the following assistance/equipment:

- Provision of mobile variable message signs (VMS) at M6 Junctions 42, 43 & 44 closing roads into Carlisle – 'Road Closed' 'No entry to Carlisle'. All other mobile VMSs (5No.) on standby
- Provision of vehicle and 2 men to transport ambulance equipment from Carleton Hall to Carlisle
- Provision of sandbags for United Utilities for use in Carlisle
- Provision of 4x4 Land Rover Freelander for use by Cumbria Constabulary
- Provision of 3No. emergency tower lighting units
- Use of Low Hurst depot facilities by Cumbria CC (Capita) for filling sand bags to protect power station
- Sourcing/provision of 3No. mobile generators for power supply
- Sourcing/provision of 12No. space heaters and gas bottles
- Provision of temporary signage for Cumbria CC (Capita)
- Provision of weather forecast reports

### Communications

All communications by the Highways Agency and AmeyMouchel were via mobile and terrestrial telephone system. The loss of the mobile system for a short period on the afternoon of the 8<sup>th</sup> caused minor problems.

### Log Keeping and Incident Reports

The Highways Agency and AmeyMouchel maintained an incident log throughout the duration of the incident.

## Media

Cumbria Constabulary Press Office provided the main focal point for media activity. Considering the demands made on the Press Office by the media, those involved should be congratulated for the quality of the information provided.

The Department for Transport's Central Press Office were involved nationally providing information to the media in respect of the Highways Agency's national network. The Highways Agency's Senior Officer on call and the Area Managers for Areas 13 & 14 provided radio/TV interviews relating to incidents in the North.

The Government News Network (GNN) had not been alerted to the emergency. It was only after discussions between the Highways Agency and the Cumbria Constabulary Press Officer, together with the initial promise of funding by the Highways Agency, that GNN became involved (see Annex 15 for GNN organisational debrief).

## Inter Agency Working

This was the first real test of the Highways Agency's involvement with the various agencies in a Gold Control situation. From the Highways Agency's perspective, co-operation between the various agencies generally went well with requests for assistance being dealt with promptly.

## Resources

Reacting to the increasing number of incidents on the network became resource intensive and heavy reliance was made on AmeyMouchel and their supply chain to keep the network free of obstructions.

Additional resources were brought in from a neighbouring area to assist with requests from the Gold Control, e.g. from the Greater Manchester area for the deployment of the mobile VMSs.

## What went well

The inclusion of the Highways Agency at Gold Control and the co-operation with the various agencies involved meant that a prompt response to requests for assistance was provided.

## What did not go well

Sourcing additional equipment. The provision of space heaters proved to be difficult as all agencies involved in the emergency were attempting to source equipment from the same 'local' suppliers.

Record of equipment deployed and the recovery of that equipment. Two number spaces heaters provided by the Highways Agency are 'missing' and have not been recovered. A set of tower lights went missing but they were eventually located/recovered.

GNN could have been involved at an earlier stage to assist with the media pressure. The Highways Agency alerted GNN to the developing situation and initially promised funding in order to bring them on board.

### Lessons Learnt

The Highways Agency's team at Gold Control needs to include its supplier. This will provide the linkage to their NCC, thus ensuring a prompt response to requests for assistance and assist in identifying priorities.

The experience gained from the training/exercises undertaken by Cumbria County Council Emergency Planning Unit (Cumbria CC EPU) involving the Highways Agency proved invaluable in the event of the emergency.

Unless the emergency involves the Highways Agency's network, their role will be one of providing mutual aid to other agencies. Their ability to provide resources/assistance should not be underestimated. Further discussions are necessary with Cumbria CC EPU and other agencies to explain the service that the Highways Agency can offer.

During the 8<sup>th</sup>/9<sup>th</sup> January resources became stretched. The Highways Agency needs mechanisms in place to ensure a level of service provision is maintained in the event of an emergency.

Difficulties were experienced in sourcing certain items of equipment. The Highways Agency needs mechanisms in place to source equipment from a wider area during periods of high demand.

GNN could have provided assistance at an earlier stage.

## FUNCTIONAL DEBRIEF - ALERTING

### Introduction

This summary report contains a précis of the debrief held into the Alerting and Initial Response Phase of the Cumbria Flooding of 7<sup>th</sup>/8<sup>th</sup> January 2005. The full report and supporting documentation is available as a separate document. The debrief was held at the Environment Agency, Ghyll Mount, Penrith on 3<sup>rd</sup> February 2005. It was attended by 30 members of the multi-agency professional partners who participated in the emergency. Organisations represented included Blue Light Services, Local Authorities, Environment Agency, Utilities and other support agencies.

### Aim of Debrief

The debrief was carried out using the “Structured Debriefing” methodology developed by John Arney of the Centre for Structured Debriefing Ltd. The aim of the debrief was for each participant:

- To reflect on their role during the flooding in Cumbria of 7/8<sup>th</sup> January 2005
- To identify personal experiences
- Share these views and discuss to establish:
  - Personal learning in their role and its future positive use
  - Ideas to improve the management of alerting procedures/initial response phase in future emergencies.

### Main Difficulties/Issues

In discussion, some common threads of main difficulties/issues became clear. These included:

- The scale and speed of the event, as it developed, took many people by surprise. Review of early warning mechanisms and timeliness of cascade systems may need to take place
- A large number of Flood Warnings had been issued, but many recipients did not grasp the seriousness of the situation. This seemed to be as a result of complacency since Flood Warnings are routinely received with often low consequence.
- There were some differing opinions at which point in time a Severe Flood Warning should have been issued for Appleby and Keswick. The actions in the plan by some agencies that this warning triggers may need to be reviewed.
- There were severe communication difficulties caused as a result of the loss of mobile networks. Suggestions for acquiring cross-network roaming sim cards were discussed
- There were great difficulties in mobilisation and deployment of sufficient resources, compounded by extreme weather conditions. This highlighted the need to have a better understanding of the developing situation and man up staff and contractors at the “at risk” stage

- There were difficulties in handling and prioritising the high volumes of calls received to the 999 service, call centres and helplines. Consideration of setting up an inter-agency funded emergency helpline facility was discussed
- Some agencies were challenged by the additional difficulty of setting up alternate Control Posts as a result of loss of primary location due to flooding. The loss of key Control Posts needs to be a key part of each agency's Business Continuity Plan (whether or not in flood plain)

### Main Positive Aspects

In discussion, some common threads of main positive aspects became clear. These included:

- The support of Radio Cumbria in providing a service for communicating with the public was considered excellent
- There was great co-operation and teamwork both within individual organisations, and between the multi-agency partners
- In the main, the multi-agency response plan and incident procedures worked very well

### Personal Learning in Role

All participants were able to demonstrate personal learning in their role and future positive use. Summarised responses included:

- Preparation and Planning – maintaining external contacts/training/exercising
- Importance of reviewing of assessments/situation – plan accordingly
- Importance of communications internal/external
- Don't ignore warnings – question more/better communication. routes to assess

### Ideas for Roles in the Future

In response to a question on participants views on tips for performing their role in the future, summarised responses included:

- Utilise and mobilise resources early as possible
- Familiarise yourself with the plan
- Communicate and brief well – better inter agency/command routes
- Plan handover rotas to ensure adequate rest
- Ensure sufficient warning/accurate forecasts

### Ideas to improve Alerting/Initial Response Process

Participants were asked to suggest ideas to improve the alerting process and initial response to future emergencies. Finally they were asked to prioritise all participant responses to gain a considered view of the most important areas to address. These are all included as an appendix to the main report, but the main prioritised views included:

- Ensure accurate information and lines of communication are in place, and regularly exercised

- Examine more robust communications by resilient cascade systems, particularly at the warning stage and not as the incident occurs
- Improve public warning systems and examine feasibility of introducing “smart systems” to selective at-risk communities
- Engage with public to encourage them to initially react to help themselves

### Conclusion

The debrief was well attended, and the methodology allowed all participants to fully air their views positively. There seemed to be a genuine feeling of partnership and support between agencies. Whilst the challenges presented in this incident at the alerting and initial response phase were extreme, the difficulties were overcome, and all seemed eager to learn from the event in order to improve the response in the future. The key issues/suggestions for improvement identified from the debrief, if addressed, will undoubtedly improve the overall response in future emergencies.

For further information please contact Dave Clarke, Environment Agency at [dave.clarke@environment-agency.gov.uk](mailto:dave.clarke@environment-agency.gov.uk)

## FUNTIONAL DEBRIEF – SILVER AND GOLD COMMAND

For further information contact Superintendent Ted Thwaites, Cumbria Constabulary at [ted.thwaites@cumbria.police.uk](mailto:ted.thwaites@cumbria.police.uk)

### Occasion / Event

The topic to be debriefed is defined here:

Working in **Gold Control**, Cumbria Constabulary during storms/flooding, January 2005

### Aims of Debrief

- To reflect on roles in Gold control during the storms of January 2005
- Identify personal experiences
- Views shared and discussed to establish:-
  - personal learning and future positive use
  - Ideas for improvements (for the benefit of either self / others or the organisation)

Place: Cumbria Police HQ  
Time: 1100 hours 02/02/05  
Debrief Leader: Peter Mallett

Initiator / Client: Supt Ted Thwaites

Participants: Twenty-two

### Debrief Report

The debrief was attended by Police and partners staffing the Gold Control room during the incident (or their representatives). All participants were given the opportunity to reflect on their roles and to contribute their views in discussion. The main issues raised:-

Things that frustrated people in their role:

- Planning – procedural, logistics, strategic
- People issues – linked to above
- Communication – gold/silver link, power availability, ‘who does what’
- Information management – inter agency (differing systems)
- Silver control – clarity of roles/liaison
- Systems & processes
- Other agencies
- Press & Media
- Equipment

Things that gave most satisfaction in their role:

- People – made it work
- Other agencies – support
- Outcomes
- Press & media
- Information management
- Gold approach
- Planning – especially preparation for recovery phase

In closing the debrief participants were asked to identify:-

- Personal learning & its future positive use (attached)
- Ideas for improving efficiency of future Gold Controls

Better communications agencies/gold/ silver/briefings/liaison/sit-reps	(15 responses)
Personal logging capacity/audit trail	(6 responses)
Bird table/Gemini	(5 responses)
Training (exercise)/good practice identification	(5 responses)
Attendance of all agencies at early stage	(4 responses)
Visual aids to incident asap/maps	(3 responses)
Awareness of Gold capabilities/roles	(3 responses)
Skills audit/call out lists	(2 response)
Update emergency contact lists	(2 response)
Search criteria/outcomes/logging	(2 response)
Agencies bring own admin.	(1 response)
Agencies plan desk areas to suit	(1 response)
Contingency plan review	(1 response)
Plan technical resilience	(1 response)
Internet Comms	(1 response)
Communications optimized	(1 response)
Consolidate LA representation	(1 response)
Effective use of new build	(1 response)
Research wider funding opportunities	(1 response)
Communications resilience/knowledge	(1 response)
Improved brief/debrief (multi agency)	(1 response)
Review procedure - issuing flood warnings	(1 response)
Practice fall back procedures	(1 response)
Improve flood defences around Gold	(1 response)
Better IT	(1 response)
Availability of assets and training re use	(1 response)

## Occasion / Event

The topic to be debriefed is defined here:

Working in **Silver Control**, Cumbria Constabulary during storms/flooding, January 2005

## Aims of Debrief

- To reflect on roles in Silver control during the storms of January 2005
- Identify personal experiences
- Views shared and discussed to establish:-
  - personal learning and future positive use
  - Ideas for improvements (for the benefit of either self / others or the organisation)

Place: Cumbria Police HQ  
Time: 1100 hours 02/02/05

Initiator / Client: Supt Ted Thwaites

Participants: Twenty-two

## Debrief Report

The debrief was attended by Police and partners staffing the Silver Control room during the incident (or their representatives). Operational staff also represented.

All participants were given the opportunity to reflect on their roles and to contribute their views in discussion. The main issues raised:-

Things that frustrated people in their role:

- Gold command – decisions made/relations
- Communication – numerous
- Systems & processes – Casualty Bureau delayed
- Other agencies – slow to respond etc
- Competing demands
- Planning issues
- Facilities/workloads
- Information management – logging/briefing
- Press & Media – accuracy/availability of info
- Equipment – Sky news feed/boats

Things that gave most satisfaction in their role:

- Our approach – inter agency working
- People – made it work
- Communications
- Other agencies – support
- Information management

- Planning
- Equipment
- Outcomes

In closing the debrief participants were asked to identify:-

- Personal learning & its future positive use (attached)
- Ideas for improving efficiency of future Silver Controls

Better communications agencies/Silver/Gold/briefings/ liaison/sit-reps  
(11 responses)

Train & exercise/multi agency (6 responses)

Staff Silver properly (4 responses)

Personal logging capacity/audit trail (3 responses)

Gemini (3 responses)

Bigger room/meeting capacity/facilities (3 responses)

Clear decision making/understanding (3 responses)

Co-locate Silver/Gold (3 responses)

Adequate physical checks (reality) (2 responses)

Better use of IT and Comms systems (2 responses)

Suitable Sat Comms between agencies (2 responses)

Check staff understanding of roles (2 responses)

Comms involved in decision making (1 response)

Video link Silver/Gold (1 response)

Cat 1 units attend/briefed (1 response)

One comms channel (1 response)

Back up power for comms (1 response)

Let Silver perform role (1 response)

Update call out lists (1 response)

Effective comms Silver-Bronze (1 response)

Status/sit rep board managed (1 response)

Multi agency control/mobilization Facility (local) (1 response)

Govt. awareness re resource issues (1 response)

Staff welfare checks (1 response)

Reception centre planning – check (1 response)

Check resource levels – all agencies (1 response)

## **FUNCTIONAL DEBRIEF – SEARCH, RESCUE AND EVACUATION**

For further information contact Bernard Dolan, Cumbria Fire and Rescue at [Bernard.Dolan@cumbriacc.gov.uk](mailto:Bernard.Dolan@cumbriacc.gov.uk)

### Background

The severe weather conditions forecast for the county during Friday 7<sup>th</sup> January comprised of severe gales and heavy rainfall culminating in predictions of structural damage and flooding across the region. In the event, gales of 70 to 80 mph were common place with gusts recorded as high as 97 – 128 mph. In addition, 225 millimetres of rain fell on to ground already saturated by previous rainfall. The Fire Service received calls for assistance due to flooding primarily from the Kirkby Stephen, Appleby, Shap, Penrith, Keswick, Cockermouth, Longtown and Carlisle areas. A large proportion of the calls involved the rescue of personnel from flooded property. It has now been confirmed that three fatalities in the county were directly attributable to the abnormal weather conditions.

The high winds and rain also affected other parts of the county, particularly in the Barrow in Furness area where structural damage to buildings was of noted significance.

By far the greatest concentration of flooding incidence occurred in the Carlisle area where approximately 6,000 residents from 3,500 homes were affected by the flooding and 60,000 homes were cut off from electrical supplies. The flooding in some areas reached seven feet in depth and took four days to subside. Carlisle Fire Station and Police Station were flooded around 0830 hours on the Saturday morning resulting in the loss of valuable personal protective clothing, as well as other essential operational equipment and records. The Fire Station was successfully relocated to Carlisle Castle where the county's Emergency Planning Unit and Silver Command for the incident were situated. The Police set up a temporary Police Station in the city.

The main focus of rescue activities was concentrated upon safely evacuating citizens from flooded premises. This was achieved in many circumstances by ushering and assisting victims on foot to places of relative safety from whence they could be transported to reception centres or other permanent places of refuge. Less mobile victims and those whose escape had already been compromised required physical rescue by ladder into boats, buses, and on occasions, fire appliances to places of safety. Other agencies such as the Police, Coastguard and International Rescue also deployed crews to undertake rescues. Considerable effort was expended in exerting some controls to ensure the perilous situation was not compounded by further incidents occurring. However, the community spirit and selflessness shown by many members of the public was to be commended as without their help and co-operation the task of rescue would have been almost impossible. Offers of assistance to the Fire Service were accepted from Merseyside and Cheshire Fire & Rescue Services who deployed boats and crews in the Warwick Road area of the city to assist with the evacuation of residents during the afternoon of the first day.

Offers of assistance to the Fire Service were accepted from Merseyside and Cheshire Fire & Rescue Services who deployed boats and crews in the Warwick Road area of the city to assist with the evacuation of residents during the afternoon of the first day.

### The situation in Carlisle

Carlisle is the principal conurbation in north Cumbria. The city is situated on the River Eden where two significant contributories, the Caldew and the Petteril, both of which are prone to rapid flooding, join the main river. The city has been the site of flooding for many years although the substantial flooding defences that have been constructed here, in the main, reduced its immediate effect upon the city. During the flooding the city's Civic Centre, the Magistrates Courts complex, Police and Fire Stations were all directly affected by flooding, greatly escalating the difficulties faced by the civil authorities.

### Sequence of events taken from the Fire Service report

The following sequence of events, taken from the Fire Service debrief, is used to set a time line and convey the general picture of the emergency situation to which all agencies were, at various stages and locations, responding over Friday night and into Saturday.

It is followed by brief resumes of each individual participant's response. As all agencies will be sending debrief reports it would seem superfluous to give full reports here.

"The first reports of flooding in the Carlisle area were received from Cumwhinton at 2250 hours on 7<sup>th</sup> January. This was caused by a highway drainage problem. The first reports from within the confines of the city were received at 0020 hours on 8<sup>th</sup> January and involved the evacuation of 40 people from a club in Gilford Park where the access road was flooded at the underpass beneath the Main West Coast railway line. This was caused by a problem with highway drainage combined with some flooding from the adjacent River Petteril. The club itself was not affected. Almost simultaneously at 0024 hours, reports of flooding were received from Newmarket Road in Carlisle where the cellar at the Turf Inn had been inundated. The flooding of the cellar from groundwater sources is a regular occurrence during minor flooding incidents. Flooding directly from the River Eden did not occur at the Turf Inn until 0830 hours on Saturday 8th January. By 0230 hours requests for assistance were being received from the Caldewgate area of the city. Various reports were also received during the night from Harraby Green and Botcherby districts initially from the surface and groundwater flooding, and subsequently as the River Petteril burst its banks.

In Denton Holme flooding occurred from a number of sources. On the left bank, flooding began shortly before 0200 hours, and was caused by a tree obstructing the South Vale footbridge, on the River Caldew. On the right bank, the gasworks area began flooding from around 0200, due to a damaged wall, and subsequent overtopping of the defences.

Further downstream, below Victoria Bridge, CCTV and video evidence collected after the event shows that initial flooding on the right bank was from manholes surcharging. The left bank (Shadongate) was affected from approximately 0200 by flows from the Dow Beck culvert and sewer flooding.

Subsequently, from around 1100, both banks were inundated by water backing up from the River Eden.

Willowholme was affected by surface water and sewer surcharging from 2230 on 7<sup>th</sup> January. This was compounded by flooding from the Dow Beck and surface water, flowing from Caldewgate from about 0200. Flooding may also have occurred from the Little Caldew and Caldew, caused by flows backing up following obstruction of the railway bridge by trees and debris.

Again from around 1100 on 8<sup>th</sup> January, the area was inundated by flows backing up from the river Eden.

Flood warnings were issued for Cumbria, including parts of Carlisle, throughout the night. By 0502 hours, flood warnings had been issued for all flood warning areas in Carlisle.

At 0830 hours reports were received that the Civic Centre was being flooded and soon after the Magistrates Courts, Police and Fire Stations were also reported as flooding. These events coincided with the change of watch at the Fire Station so the oncoming watch was confronted with the task of salvaging the auxiliary appliances and other easily removable equipment whilst they awaited the return of both pumping appliances that were deployed off station.

Unfortunately this essential salvage work was interrupted by calls for assistance in nearby Peter Street where people were trapped upstairs by flooding and fires in their homes. Fortunately spare ladders were available at the Fire Station and a number of rescues were effected. This short delay however in salvaging the vital personal protective equipment created severe logistical problems for the Service in the ensuing days.

At the same time that the city's Municipal buildings were being enveloped within the flood, another area just outside the city at Warwick Bridge was becoming critically affected, with a number of requests for rescues being received by Fire Control. Movement within and across the city was becoming more hazardous as many of the main routes became blocked. This led to some delay in providing an adequate response to those requests for assistance where in some cases the rescues were eventually achieved with the use of an Air Sea Rescue Helicopter.

With the loss of the Fire Station the Service initially set up a fire and rescue service rendezvous point on higher ground at West Tower Street. However, this proved to be untenable being exposed to the elements and members of the general public who inundated staff with requests for assistance. (Similar problems were experienced by the Police who had set up a temporary base in the centre of Carlisle.) By noon the Service's Control Unit had been set up at this location providing some communications facilities, however the problems associated with members of the public forced the decision to relocate to Carlisle Castle from where Silver Command was now operating. The relocation was achieved by 1430 hours.

By mid morning the pattern of activities had been set for the next few days. These activities focused upon undertaking searches and rescues with Fire, Police, Mountain Rescue teams, the Coastguard, International Rescue Teams and members of the public. The main areas of activity by mid morning were concentrated in the Willowholme, Warwick Road and Warwick Bridge areas.

Many members of the public generously offered assistance in all manner of ways, however some came ill-equipped to undertake water rescue activities, thereby extending the scope of risk and deflecting the efforts of the uniformed services from the task in hand.

During the morning the Willowholme sub station became flooded, resulting in major power outages, not only within the city but all over the north of the county. Whilst the initial impact of this loss of power to a great extent went un-noticed by the crews operating in the open air, its effect on the infrastructure was dramatic, making homes and businesses well outside the initial flood zone uninhabitable. In particular, the loss of power to telecommunications systems soon threatened the fragile communications that were working including the police UHF network.

At 0800 hours the Deputy Chief Constable invoked the Cumbria General Emergency Plan; Gold Command was established at Police Headquarters in Penrith and the Emergency Planning Unit at Carlisle Castle was designated as Silver Command. The Fire Service had already nominated an officer to liaise with the Emergency Planning Unit staff at The Castle, consequently he undertook the task of initiating the Fire Service Silver Command. The Chief Fire Officer attended Gold Command.

During the morning, assistance to the Fire Service in the form of rescue boats and crews was offered by Merseyside and Cheshire Fire and Rescue Authorities. The offer was gratefully received and the crews arrived on the outskirts of Carlisle at approximately 1600 hours. The Merseyside crew was the first to arrive and established a Bronze Command at the eastern end of Warwick Road in the Tesco car park. With no way of communicating with Silver Command or Fire Control they liaised with the Police and rapidly deployed their boat crew to undertake rescues at the behest of the Police. The Cheshire crew later joined Merseyside but deployed their boat and crew from the western end of Warwick Road. Later in the afternoon a Group Manager and a turntable ladder crew managed to co-locate with the Merseyside crew creating a radio link with Fire Control and Silver Command.

With the creation of a Silver Command and the co-location of the emergency services, a systematic approach was adopted for the searching of property. Bronze commands under the direction of Silver Command deployed joint teams to search, and if needs be, rescue victims from flooded premises. The search patterns were directed from Silver Command and undertaken in a methodical progression upon completion of each block of premises. The results were fed back to Silver Command who amended the maps. In this manner, the Search & Rescue Teams were able to report with some certainty that all members of the public who wished to be evacuated had been, and by the end of Tuesday night all people had been accounted for.

## Subsequent Actions

Over the rest of the weekend and into the following week all agencies concentrated on:

- Ensuring those who had opted to remain in their homes were safe
- Assisting from their homes people who now wished to leave because of the ongoing nature of the situation
- Carrying out a full house to house search to ensure there were no further casualties
- Getting food and other necessities to trapped or isolated members of the public and to reception centres.
- In the case of the Police and Fire Service, consolidating their temporary locations, acquiring kit and salvaging items from their flooded stations.
- Assisting in pumping away flood water to assist other agencies bring back power supplies, clear roads, restore communications etc so that the city could get back to normal as quickly as possible.
- Consolidating command and control
- Reassuring the public by house to house visits involving Police and Fire Service.

## Individual Inputs to the Debrief process relating to the Involvement of Various Agencies

**Mountain Rescue** : At 2300 hours on Friday 7<sup>th</sup> they were called to assist in Appleby with the rescue of 5 horses from Bolton near Appleby. There was difficulty of access and were impeded by HGVs on the A66. They stood down at 0700 hours. They attended Gold Command on 8<sup>th</sup> January and also assisted at Warwick Road in carrying out rescues to the rendezvous point of the Magpie Public House and continued to work up until 2100 hours on the Saturday. On Sunday they stood by to assist as landline telephones had gone down in the north of Carlisle and using their communications facilities they stood by public telephone boxes should anybody wish to make an emergency call. They were relieved by the Army at 2000 hours and took up again at 2000 hours until the following day.

**Ambulance Service:** They had considerable difficulties getting in but they continued to accept all calls in the normal way. On Sunday they attended Silver Command and continued to attend from 0800 hours/2000 hours until it closed.

**Army 42 Brigade North West:** Op GIRAFFE was a limited MACC "Category A" operation in support of the civilian authorities in Cumbria. It commenced with the deployment of SAR assets by ARCC on 8<sup>th</sup> January 2005 and ended with the withdrawal of the GOLD MLO on 11<sup>th</sup> January 2005.

The MACC support was coordinated by HQ 42(NW) Brigade and involved a variety of service units including: RAF and RN SAR assets; Army LOs at Gold and Silver Commands; RAF ground forces from Spadeadam and Royal Signals units. Tasks conducted ranged from SAR, to the delivery of essential supplies and the establishment of an alternative communications network for the public to contact the emergency services. Logistic support included the provision of sandbags and the accommodation and feeding of emergency personnel utilising TA and ACF infrastructure support in Carlisle Castle.

**RAF:** They were assisted in search and rescue by helicopters from the Air Rescue from Kinloss and they also alerted Spadeadam as they were the only forces response unit in Cumbria. By lunch-time 20 troops and 4 officers were available. Royal Naval Sea King helicopters were available from Prestwick and Bulmer and in all 25 persons were rescued. Bulmer then returned to base and the search and rescue helicopter was tasked in a support capacity. In the end the RAF troops assisted in the distribution of food in liaison with Gold and Silver Commands, working in two groups of 25.

**Coastguard (Maritime Coastguard Agency):** 0400 Burgh by Sands (BBS) Coastguard Rescue Team (CRT) Station Officer (SO) contacted by phone then full CRT via pager alert. CRT took rescue boat via trailer to Carlisle City.

0809 Whitehaven CRT tasked, via pager, to assist Police to clear fallen trees in Whitehaven area

1010 Annan CRT tasked, via telephone, to take spare boat fuel to Carlisle as petrol pumps in area inoperative, this CRT was also to provide communications with CG units and Rescue helicopters.

1400 Walney Island CRT, via pager/telephone tasked to provide additional boat crew to Carlisle.

1430 Portling & Millom CRTs, via telephone, to provide basic search teams to Carlisle.

During the course of the operation there were difficulties with communications  
1410 Caldbeck Aerial site lost due to power outage

1435 Maryport CRT tasked to provide comms relay with Rescue Centre and units in Carlisle. Normal Marine Band channels utilised - 0, 6, 16, 67 Communications extremely difficult due to power outage

Estimates from CRTs are between 60 - 80 persons recovered (actually moved from location), 40-50 assisted (individuals/groups given provisions, moved to different location etc). Through the night CRTs assisted F&RS personnel to keep a watching brief on 22 vulnerable individuals. Some self tasking due to comms problems best estimate is 12 person assisted.

0800 Sunday - all CG units stood down from flood tasking due to threat of severe coastal floods.

One of the points raised by the MCA was that by Sunday 0630 when the rescue was coming to an end there was a need to return people to the coast to reassure the integrity of coastal rescue as the weather forecast was predicting bad weather at sea and possible coastal flooding.

**RNLI:** They were not called out in the initial stages. They had a facility of 9 crew and two rescue boats. The operation room lost contact with Carlisle. On attending the incident they were met by the Police on the city side of Warwick Road and tasked with rescues; returning personnel to the Tesco car park. Comment was

made concerning the number of boats on water with no lights during the evening. RNLI continued picking up people until approximately 2200 hours.

**Emergency Planning:** Having opened the control centre at the Castle, on the evening of 7<sup>th</sup> January, Emergency Planning then continued as representation increased in Silver. Emergency Planning will be issuing a separate report.

**Police:** Throughout the night the water levels went up and receded and thus the situation was in constant fluctuation. Following the flooding of the Police Station the deployment of Police resources proved difficult because, as with the Fire Service, considerable amounts of kit had been lost. In addition, in setting up a temporary Police Station, there were difficulties in finding suitable places to park. Having established their presence in the city they were also inundated with personnel calling and requesting assistance at temporary Police Stations etc. It should also be remembered that throughout the county the Police were having difficulties with road blocks due to fallen trees and in excess of 20 vehicles having been blown over on the M6.

Other issues demanding Police attention were to ensure that the police station was secured and that confidential and secret information in the flooded Police Headquarters was not compromised by falling into the wrong hands. Also, community tension had to be quickly assessed to check for any heightening community tension which would be illustrated by overt criminality, e.g. looting or groups gathering on the streets causing public anxiety. Initial assessments indicated that no such rise in overt criminality or other lawlessness was evident.

As two elderly ladies had died in their homes during the flooding, the Police appointed a Senior Investigating Officer (SIO) to ensure that a proper and thorough investigation into the circumstances was conducted. A major problem was that the investigation teams initially had no dedicated accommodation and there was a problem due to difficulties with accommodation in the Castle with all agencies using one main room. To assist the investigation, the Police were offered temporary accommodation by the British Transport Police in an office in Citadel Station and the investigation was carried out from there. There were also possible fears of more fatalities. The need for a temporary mortuary was considered, with the Health Service offering some 20 to 30 possible slots from existing places at Carlisle and West Cumbria hospitals.

On Sunday, the Cumbria Constabulary Police Tactical Support Group was called in to assist with the searches and reconciliation of missing persons. Searches were carried out by fire crews with a police officer present in each group. Criteria were agreed by which the Senior Investigating Officer would be immediately informed if any other facilities were discovered. There was a need to reconcile telephone calls to the Police and their Casualty Bureau with records supplied during the searches and information relating to persons who had reported themselves as being all right. There was also a need to ensure that no one in the area was in need of medical assistance. The Police, in the absence of any details, tried to contact whoever possible in order to establish that all persons were safely accounted for. Forced entry was only used if all else failed.

Whilst there was an attempt to carry out a structured search from the two control points which were set up, there was also a need to ascertain quickly the

whereabouts and safety of 150 prioritised calls which had come into the Police. The Police had established a method of trying to prioritise searches for personnel based on information given, e.g. medical condition, age, frailty, bed ridden etc. The list was constantly being added to.

On Monday, the issue was made somewhat more difficult because people were leaving their premises to go to work so the entry criteria was changed. The Willowholme area was searched as per a missing persons search and people were accounted for by either talking to them or being told that they had been seen. Where premises had been searched, barrier tape was put around the doors. In some cases the Police checked twice to ensure that people were where they said they were. Apart from the queries coming in to the Police Control and Casualty Bureau, there were also queries which were raised on the spot and these were then passed on to record on the control log. The co-ordination of the search was carried out by mapping on laptop computers. The Police concluded that the only definite way to ensure that everything had been checked was to do a street walk.

With regard to the Police Casualty Bureau, this had been set up as a helpline in the first instance but its role had been changed by mid Saturday night. It received some 1100 calls with 480 people perceived as missing. In many cases there was no information as to where people had gone to seek refuge. Some people had put notices in the window describing where they had gone.

By the end of Tuesday night, all personnel had been accounted for and no further fatalities had been found and this subsequently proved to be the final situation.

**Fire:** Fire response is covered in the scene setting description.

**International Rescue:** They did not receive an initial call and on midday Saturday offered assistance. International Rescue have four boats based in Scotland, York, Norfolk and Devon. Three had arrived by 5pm on Saturday. They took up operations from the Tesco end of Warwick Road and the last boat was out until midnight. However, a team was left on site comprising 5 personnel and 5 took rest in a local church hall. They were swapped over at 4am. At 0845 they stood down and left.

### What worked well

#### **Mountain Rescue**

- Own communications – very good
- Food
- Local knowledge very good. Good to have the Magpie Pub as a rendezvous point with public coming to Magpie informing them of the whereabouts of relatives etc. This was a good form of unofficial casualty clearance centre.
- Mountain Rescue have trained personnel at their availability

#### **Ambulance**

- Own radio system generally worked very well, only problem occurred in the south of the county
- Good use of questions for scene safety, i.e. what is access like etc

## **Coastguard**

- Own communications and logistics worked very well on scene
- Own training provided good assistance
- Good liaison with the helicopters etc
- List of vulnerable people was provided very quickly and efficiently to provide boat crews with names and addresses etc
- Good communications and liaison with multi agencies

## **Emergency Planning**

- Multi agency liaison worked well and all training and exercises proved their value
- The Castle provided its worth at the time and during the incident (English Heritage to be thanked for making this available)
- Many members of the public did outstanding work in self help and there was good community bonding, particularly at the reception centres
- Radio Cumbria and its ability to get information out was excellent
- Reception centres worked very well but these could also be used for Emergency Service personnel and not just the public

## **Fire**

- By Tuesday night the Police were aware that all places were searched. This was a great plus for all Services involved
- All official responding Agencies were conscious of health and safety and ensured that the public were not encouraged to use their own equipment unless they had full personal protection clothing and training
- Communications level worked extremely well and liaison between Fire, Police, Ambulance, Mountain Rescue showed the benefits of multi agency training

## **International Rescue**

- Police and Fire did well to set up stations considering they had lost their bases in Carlisle

## **Police**

- Liaison and decision-making worked in general very well
- Although the Castle was small at least it was a plus and there was somewhere to work from
- Multi-agency control in both Gold and Silver generally worked well
- Warwick Road Search – 1,198 houses were searched and this was due to exceptional team work

## **Police Casualty Bureau**

- Environment Agency provided good maps for the Casualty Bureau
- There was good liaison with others

## What did not work well

### **Mountain Rescue**

- Lack of buoyancy aids including those for casualties and persons being rescued
- Lack of sufficient lighting – need to think ahead on this, particularly as it was winter and got dark early
- Lack of effective and integrated control from other agencies
- Out of date street maps
- Lack of awareness of each others resources and capabilities
- Non-compatible communications

### **Ambulance**

- Should have had more input in Silver
- Had to shut down radios at one time due to power failure
- Need to ensure and implement site safety
- Need updated list of voluntary Ambulances for transportation and back-up etc

### **Army – 42 Brigade**

- Could have contributed more if brought in at an earlier stage
- Other Agencies not aware of capabilities e.g. specialist personnel etc
- Slight delay in establishment of Operations Room created pressures on duty staff
- They need to be brought in as soon as possible as there are lead times on some issues, etc sandbags
- Need to be more flexible, e.g. on indemnity reports

### **RAF**

- Need to be brought in early even if this is just as an advisor as to whether there is any way they can be of assistance

### **Coastguard**

- Insufficient number of blankets available – perhaps there could be a central store for provisions to the public
- Non professional craft being used after dark
- Need a more structured approach early on for rescues
- Lack of refreshments for crews
- Not enough details on the scale of the incident
- Need to ask more questions
- Lack of knowledge by other agencies of their resources, e.g. booms and pumps

### **Royal Naval Lifeboat Institution**

- They had resources available and were not called out
- The Coastguard Rescue Centre should think of asking for RNLI and they had no overall true picture of the extent of the incident

## **Emergency Planning**

- Communications - difficulties with mobile phone networks maintaining power and charging up batteries
- Effect of flooding on other agencies, e.g. Willowholme and its effect on United Utilities
- Lack of fuel for generators due to power cuts
- Self help requires controlling to a greater degree
- No true initial appreciation of potential problems arising

## **Fire**

- Need to clarify the issue of transport for evacuated personnel
- Health and Safety issues stemming from involvement of untrained, ill-equipped persons
- Delay in asking for assistance of the armed forces
- More pre-planning on search and rescue mapping techniques etc

## **International Rescue**

- Resources not recognised - more could be done to take control of resources in sectors

## **Police**

- Recording of information from all areas need to be suitable for use of other agencies
- Colour coding on maps to prioritise affected areas
- Communications

## **Police Casualty Bureau**

- Lack of useable lists available
- Lists need to have common terminology and maps needed earlier
- Comprehensive data on search info needed

## Issues Arising

All agencies were faced with a difficult situation which ebbed and flowed throughout the night of 7<sup>th</sup> and 8<sup>th</sup> January. Uncertainty over the degree to which the flooding would finally reach was instrumental in decision-making at the time. At the height of the flooding and immediately following it, it was established that there was a need to carry out a house to house search in order to determine whether there were any persons unaccounted for. Two elderly ladies had already been found dead in premises on Warwick Road. The Police Control, and subsequently the Casualty Bureau, were receiving a large number of calls from persons wishing to establish the whereabouts and safety of relatives and friends. This was an exceedingly difficult task and may well be faced by other parts of the county inundated by flooding or some such similar emergency.

## Establishing whether all of the public are accounted for

People chose whether or not to leave their homes on the night of 7<sup>th</sup>/8<sup>th</sup> and the night of 8<sup>th</sup>/9<sup>th</sup>. Thus, for a variety of reasons, including immediate self evacuation, rescue by one of the agencies, rescue by individual members of the public or they were away from their homes during the incident, e.g. on holiday, people were not present in their houses at some time during the flooding. The people who left went to reception centres, to relatives, to stay with friends or to stay elsewhere. Despite the fact records of those who were rescued were kept by some agencies, and those who turned up to established reception centres were logged in, there were members of the public who were rescued for whom no records existed. These comprised those rescued by the agencies, those rescued by members of the public and those who had self evacuated. For all these reasons, the reconciliation of the queries received by the Police and the establishment of whether or not that person was safe proved an extremely difficult task. However through close co-operation, particularly between the Fire and Police and with the assistance of others, by Tuesday night the Police were aware that all places were searched and persons accounted for.

It would seem that the certainty as to the safety of the public can only be established in future emergencies such as this by full co-ordinated house to house searches being undertaken. In this incident the nature of the evacuation and rescue, self rescue and non-occupation of houses at the time of the incident, meant that no true picture could be built up without such a search taking place. This situation is highly likely to occur again in a range of similar future emergencies. There was criticism that agencies entered houses where members of the public had rung to say that they were safe. Only by doing this could the Police establish beyond all doubt that the premises were empty and that the call was genuine.

## Evacuation

The decision to carry out mass evacuation is a very difficult one to make, particularly in the light of conflicting advice as to what the extent of the flooding was going to be. For example, in Keswick evacuation took place from Keswick Cottage Hospital when 43 people were evacuated and from Ravensfield EPH. Such evacuations are time consuming and may cause further problems, e.g. the prioritisation of medical supplies and the need for considerable amount of transport, including possible specialist transport. Extensive planning must take place, for such evacuations will always be judged in hindsight, especially when people have been displaced with no need. Where personnel are evacuated to places of immediate safety or rescued there needs to be transport to take them to reception centres etc.

## Early Notification

Several agencies, RAF, Military, RNLi, Coastguard, are of the opinion that they should have been activated sooner. Such lessons should be borne in mind for future incidents for the following reasons.

- Becoming a member of one of the agencies at a co-ordinated command allows them to make input into their capabilities in the situation, advise whoever is in charge as to whether or not they will be of assistance.
- Most agencies have a lead time in order to build up a response.

- In getting boats to the appropriate sites or in the case of sandbags actually filling and transporting the sandbags.

### Health and Safety

Agencies reported their concerns that members of the public were inadequately equipped to carry out the rescues they did. The public will always respond in such cases and without their response in this situation many more people would have been put at risk. However, once any agency undertakes responsibility for tasking such people the issue of responsibility for their wellbeing then falls on them. All agencies were adamant that they did not utilise persons who did not possess the necessary personal protective equipment or other health and safety aids.

### Communications

This incident highlighted a need for reliable communications. VHF radio, orange and vodaphone mobile networks and some land lines went down for protracted periods as a result of the electricity failures affecting standby power. Agencies need to ensure the robustness of their communication networks, perhaps including roaming mobile facilities.

### Use of the military, e.g. MACC

Lessons identified for the civilian authorities are as follows:

There was a delay in requesting MLOs for Gold and Silver Commands. This inhibited the provision of broader military support as there was no subject matter expert on hand to advise of military capabilities. (**Lesson:** Civilian authorities should request MLOs in the early stages of an emergency, even if military support is subsequently not required)

The delay also meant that by the time that military ground assets were deployed (Sunday 9<sup>th</sup> January 2005), the life-threatening stage had almost passed, which then led to issues surrounding charging and costs. (**Lesson:** MACC requested during the life-threatening phase is at no-cost; advice will then be provided on when the charging basis is likely to change)

There also appeared to be a misappreciation of the required lead-times for logistic support. When the civilian authorities requested sandbags on Monday 10 January 2005, it was assumed that they would be delivered in a very short time-frame. However planning did not account for the need to seek the required approval and to transport the items from the storage depot. (**Lesson:** Planning must account for the lead-times involved in MACA but the military needs to advise the authorities accordingly)

The civilian authorities perceive that the MACA process is rather bureaucratic, particularly in relation to the requirement for indemnity forms to be signed by the Gold Commander. This is MOD policy but it is now appreciated that a more flexible approach should be adopted. (**Lesson:** Civilian authorities are required to indemnify MOD personnel on MACA tasks but the military need to adopt a more flexible and non-bureaucratic approach in a crisis)

## Transport

Should evacuation need to take place, including the transport of persons rescued from the "beaching points" to reception centres, there is a need for transport. The responsibility for who is responsible for ordering and organising this transport needs clarifying.

## Public Messages

Radio Cumbria proved an excellent service in keeping the public informed. There needs to be further publicity to reinforce the "Go in, stay in, tune in" message. The loss of power to many homes however meant people were unable to access the broadcast media unless they had battery operated radios. If the Government is to rely on the "Go in, stay in, tune in" policy they should consider the possibility of failure of mains power and advise on the public having battery powered radios

## **FUNCTIONAL DEBRIEF – PUBLIC WARNING, MEDIA AND PUBLIC INFORMATION**

For further information contact Brian Hough, Cumbria County Council at [brian.hough@cumbriacc.gov.uk](mailto:brian.hough@cumbriacc.gov.uk)

### Introduction

This report covers a wide range of communication aspects relevant to the January 2005 Storms and Floods in Cumbria and in particular Carlisle. It draws together the thoughts and views of the many agencies involved in responding to this serious emergency. Recommendations are made that apply both to individual agency actions and the multi-agency response as co-ordinated through the county's emergency plans.

Events over the weekend of the 8<sup>th</sup> and 9<sup>th</sup> of January, posed a serious challenge to agency communication activities. The loss of power, the loss of mobile telephone networks and the displacement of both families and agencies made the task of providing accurate, timely and accessible information to all those involved problematic. However a lot of good practice evolved which building on previous events such as the Foot and Mouth crisis meant that in the main the information needs at the height of the incident were met.

However lessons can be learned which are explored below. The report is built around different aspects of the management of the communication process and throughout comments on Public Warning, Media and Public Information. The report compliments that already submitted by the North West Media Emergency Forum.

### Gold and Silver Command

Improvements can be made to the flow of information between Gold Command at Carleton Hall and the local command, which in this instance was set up at The Castle, and in practice became a Silver Command.

The Emergency Plan, once a major incident has been declared, determines that agency communication representatives attend Gold Command. This has two key functions:

- To provide professional advice and support to decision makers.
- To provide a media liaison service through a group of trained individuals.

Whilst this group of people were able to meet the information needs of the media, it became clear over the weekend that similar detailed information was not perhaps as readily available as it should be for those in Silver Command to advise local people and responders. In fact Silver Command produced public information briefings, which were then cleared at Gold to ensure information reflected the latest decisions etc. These were then distributed to responders, local communities and reception centres. The process could have been made easier if over the weekend a full-time communications/media officer was present at Silver.

The situation at Carlisle improved considerably from the Monday onwards once an officer, secured through the county council, attended Silver on a full-time basis until the time that control was handed over to Carlisle City Council.

## **Recommendation**

- Where a major incident has been declared a full time communications officer should be present at Silver command to provide a further link to Gold.

## Sharing of Communication Officers

Even without the communication difficulties caused by damage to the normal communication networks and the transport problems, there is enormous pressure on the communication response at such times. Particularly in this incident if further flooding had occurred which would have extended the length of the incident.

Using the county's pool of experienced PR professionals needs to be maximised at such times. The emergency plan allows for individual agency representatives to come together but does not draw on communication professionals from agencies not directly involved. Because of this, prolonged activity or a single major incident that focuses on one or two agencies could easily stretch communication resources.

Formalising the informal arrangements that already exist would enable the emergency response network to call on a pool of experienced pr/communication staff.

Within both gold and silver commands, the Media Co-ordinator, traditionally provided by Cumbria Police, has a key role in driving forward communication initiatives and co-ordinating media response. This is a heavy burden and to date only a small number of people have had sufficient experience to take on this role, again highlighting a possible weakness in the system where incidents carry on for a long time.

Further emergency response training is required for all key agency communication staff to enable them to gain the experience necessary to support this role. This could be delivered through the Emergency Planning Unit and the cadre referred to in the recommendation below.

## **Recommendation**

- That Cumbria Police, being the Gold Commander during major incidents, co-ordinate the setting up of a pool/cadre of experienced pr/communication professionals to maximise resources across the county during critical/crisis incidents.
- Specific emergency response communication training is made available to all key agency communication responders to strengthen the pool of expertise currently available in Cumbria.

## Web-Based and Public Helpline Information

The provision of accurate timely information via both the internet and telephone helplines is crucial in reassuring and informing those both directly and indirectly affected by an emergency.

In this incident a “Cumbria Emergency” website was established on the Sunday using links already being developed by the county council’s Emergency Planning Unit. This proved a valuable site for posting all agency information and became a valuable reference tool for both the media and the public. This will of course be improved once the GEMINI web based information system is fully operative.

This approach will provide a single point of access from the very early stages of an emergency and avoid unnecessary repetition on individual agency websites. Agencies should not become precious about only holding information on their own sites. Once GEMINI is activated, clear hyperlinks must be established from all responders’ home pages to ensure the public can readily access the latest information wherever they enter the internet network.

Telephone helplines can play an invaluable role in advising the public during such times. However they need to be established quickly and those manning them must hold relevant information otherwise the public became frustrated and annoyed leading to potential criticism of how the incident is being managed. A lack of information will lead to rumour and misinformation.

In the storms and floods in January, a general helpline was established on the Tuesday by which time agencies were already receiving calls direct and making alternative telephone arrangements, particularly in the case of Carlisle City Council who had lost the use of the Civic Centre. No criticism should be made of the time taken to establish such a helpline as it was done as quickly as current arrangements allow. However it is necessary to seriously consider how to establish a single public helpline number that can meet the needs of coping with both general and agency specific information to avoid a proliferation of helplines being established as happened to a limited extent in this incident but to a much greater extent during Foot and Mouth.

It is understood technology exists where it is possible to establish a single number which has attached to it a menu of information to enable callers simply via their telephone keypad to access agency information staff direct. In fact, where existing emergency helplines exist, this technology could be put in place so that the existing helpline number provides access to a range of agencies (Including say Floodline where the prime causation is floods or United Utilities emergency helpline where the major cause is a loss of power supply). Naturally this approach is separate to any need for a telephone casualty bureau.

### **Recommendation**

- Priority must be given to the early establishment of the GEMINI system with appropriate public web access.
- All agencies must make full use of the GEMINI system and have web staff trained in emergency procedures to maximise the use of internet communications during emergencies.

- Discussions are undertaken with BT to make best use of the latest telephone technology in setting up public helplines.
- When appropriate, agency customer helpline staff should receive basic awareness training in how to respond in an emergency and become familiar in how to access information on the GEMINI network during an incident.

### Public Information

Much of the communication aspects referred to above relate to information that would be useful to both the media and the general public. In Cumbria, citizen surveys highlight the fact that the media play a key role in providing public information. Indeed during the storms and floods, Radio Cumbria provided a great amount of relevant information making full use of the BBC's public broadcasting role.

However from speaking to those involved in both Gold and Silver command, and indeed in base offices, the needs of the news media can often drive the material issued through the public information team that would sit in Gold. It is generally agreed that both emergency exercises and real incidents have not made full use of the public information networks that exist via the web, telephone helplines, libraries and other public office networks etc. A full and thorough review of the Public Information section of the county's emergency plan(s) is needed to enhance this function.

### **Recommendation**

- The county council's Emergency Planning Unit undertake a full and thorough review and update of public information sections of all emergency plans. The aim being to make the best use of modern technology and more established communication networks alongside raising the importance and profile of this function so it receives the same attention by decision makers as media liaison.

### Media Liaison

Little needs to be added to the work already undertaken through NWMEF. Feedback from media liaison officers and the media themselves suggest that given the constraints placed on responders, media co-ordination went extremely well.

The suggestions made above regarding GEMINI, sharing of communication resources, etc. will add to the good practice already in place within the county and region.

### When all else fails

As referred to earlier, the extended loss of power supply and telephone networks seriously compromised the ability to communicate with those at the heart of the crisis in January. It is difficult to see how those problems can be easily overcome. There is a growing reliance on mobile telephones and digital telephone networks in the home and in businesses that rely on electricity and of course moves away from battery driven radios etc.

These issues are not only true of the Cumbrian storm and floods. Any major incident caused by bad weather or a catastrophic event is likely to have the same impact. Educating the public to ensure they have access to a battery powered radio - and not the one in the car as that proved impossible to access in many flooded areas of Carlisle – and a traditional landline telephone needs to be given serious thought.

This is an issue that can and perhaps should be addressed on a regional if not national scale via the network of Regional Resilience Forums. Within Cumbria, it should also form part of the review of the public information aspects of emergency plans.

## FUNCTIONAL DEBRIEF - MEDIA

### Background

The debrief carried out by the North West Regional Media Emergency Forum (RMEF) revealed that concerns about flooding were very apparent by the afternoon Friday 7<sup>th</sup> January and the media were following the story closely. By early Saturday morning, the extent of the emergency was becoming obvious. The subsequent events were recorded in detail by the national and local media.

### Overview

Although the debrief raised a number of issues and challenges, the consensus was that overall the agencies responded extraordinarily well to the demands placed on them from the media despite considerable problems. Despite equally demanding problems, the local media rose to the challenge of keeping its public informed about a fast moving story.

### Resilience of the Media

#### **Issues**

- Loss of mains electricity tested the media's business continuity plans. More needed to be done post floods to resolve these issues.
- The Evening News and Star back-up generator was found to be of insufficient capacity resulting in lost production until a print run was established at a sister paper in Barrow. The Saturday day edition was almost entirely lost.
- Border television went off air until it re-routed bulletins through Tyne Tees.
- CFM hurriedly brought in an emergency generator but capacity was so limited candles were used for lighting.
- Broadcast media reported transmitters down because of lack of power.
- With the media considered key to warning and informing the public ensuring continuity of power becomes essential. United Utilities undertook to investigate what, if any, priority is given the media.
- Loss of landline phones and mobile phones caused by power failures was a major problem.
- Call roaming among mobile phone providers would be an answer but no arrangement exists at the moment other than by the use of an international SIM card.

### Agencies

#### **Issues**

- Organisations were facing unprecedented demands, including for information from the media and the public.
- Cumbria police called on help from within the force and local organisations to support the press office.

- Cumbria Fire and Rescue Service recognised that with its press officer involved in operational matters it was slow to respond to the media but had now addressed the problem.
- Links between Gold and Silver commands needed strengthening earlier to avoid contradictory messages, the problem being exacerbated by communications problems.
- After initial difficulties making contact with United Utilities press office, links worked well when established.
- Carlisle Civic Centre was under water.
- Large numbers of media inquiries to the Environment Agency resulting in them defaulting to the national customer helpline.
- The Maritime and Coastguard Agency press office is based in Southampton relying on colleagues for local information. For the MCA an inland operation was unique.
- Agencies suffered from the same communications problems as the media.
- Agencies were aware of potential major flooding issues elsewhere in the county.
- More formal mutual aid agreements would have provided more press officers which could have solved the fire service problems.

## Effects

### **Power of the Internet**

- A large part of the Carlisle population was without electricity which made the reach of the broadcast media problematic. The local newspaper was delayed.
- BBC Radio Cumbria and the Evening News and Star reported a huge increase in the number of hits on their websites.
- Opinion was divided about how many hits were local people seeking information given the power outage and the low number of Cumbrians on the internet. Research to settle this would be welcome.
- However, it was recognised that perhaps for the first time the internet may have played, for a short time at least, a larger role as an information provider than the traditional media.
- This is likely to be an increasing phenomenon which media and agencies needed to be aware of.

### **Radio**

- Radio is the traditional means of issuing fast advice to the people.
- The lack of power raised the question about how many people actually have battery powered radios and, therefore, access to crucial information. Research is needed nationally to find out how well prepared people might be.

For further information contact Nigel Ellis, RMEF Secretariat at [Nigel.Ellis@gnn.gsi.gov.uk](mailto:Nigel.Ellis@gnn.gsi.gov.uk)

## **FUNCTIONAL DEBRIEF – RECEPTION CENTRES AND WELFARE**

For further information contact David Humphreys, Cumbria County Council at [david.humphreys@cumbriaepu.gov.uk](mailto:david.humphreys@cumbriaepu.gov.uk)

### Introduction

Serious flooding started to occur in Carlisle in the early morning of Saturday 8<sup>th</sup> January and by 1000 hours, the situation had become extremely serious with close to 2000 homes flooded and many people in need of rescue. In accordance with the County Emergency Plan, a Reception Centre was established at North Cumbria Technology College and was operational for nearly 1 week. The scale and impact of the emergency was such that a second Reception Centre was established at Wigton Road Methodist Church to provide facilities for members of the public in the west of the City. In addition a number of other Centres were established either temporarily or on a 'self help' basis. The total loss of power to the City on the 8<sup>th</sup> January resulting from the flooding presented a considerable challenge to the Reception Centres and the tremendous support with the provision of Generators by the Emergency Services, Cumbria Contract Services, Emergency Planning Unit, United Utilities and others must be recorded.

Staffing of Reception Centres was exceptional; the response of staff, volunteers and members of the public was tremendous. Many people helping at Reception Centres had to contend with severe road closure problems, mobile phone and electric failures and in some cases their homes were within areas affected by flooding.

Mention must also be made of the response by local supermarkets, businesses, Cumbria Contract Services and many unnamed individuals who donated food, bottled water, toiletries, nappies, bedding and other supplies.

Whilst this report concentrates mainly on the response to the emergency in Carlisle, the situation in the rest of the County must not be overlooked. Serious flooding occurred in Keswick, Appleby, and Cockermouth and over many of the rural areas of the County. Brief details are given of the response in these areas.

By Sunday 9<sup>th</sup> January, it became apparent that a significant number of people had decided not to evacuate their homes and were in need of hot drinks and food. A number of feeding stations, mobile canteens etc were therefore established.

### Details of Centres and Others Facilities

The following centres were opened throughout course of crisis.

#### **Appleby Public Hall/ Appleby Grammar School**

- Public Hall opened and closed PM Friday 7<sup>th</sup> January. Grammar School used as Emergency Services Rendezvous Point.

#### **Cockermouth School**

- Placed on standby 2300 hours Friday 7<sup>th</sup> January but never used.

### **Wyndham School, Egremont**

- Placed on standby 2300 hours Friday 7<sup>th</sup> January but never used.

### **Lochinvar School, Longtown.**

- Opened midnight Friday 7<sup>th</sup> January. Closed 0100 hours Sat 8<sup>th</sup> Jan

### **Keswick School**

- Opened 0200hrs Saturday 8<sup>th</sup> January
- Closed 1100hrs Saturday 8<sup>th</sup> January
- Handled 20 evacuees. Many went directly to local hotels.

### **North Cumbria Technology College**

- Opened 1130 hours Saturday 8<sup>th</sup> Jan
- Closed 1045 hours Thursday 13<sup>th</sup> January. Main Reception Centre.
- 200-300 stayed overnight and 300+ meals provided daily for evacuees + emergency services

### **Methodist Central Hall, Fisher St.**

- Opened and closed AM Saturday 8<sup>th</sup> January

### **St Cuthberts Primary School**

- Opened and closed daytime Saturday 8<sup>th</sup> January
- Used as holding centre

### **Wigton Road Methodist Church.**

- Opened PM Saturday 8<sup>th</sup> January. Stayed open on request from Cumberland Infirmary until midday Monday 10<sup>th</sup> January 200-300 meals provided. No overnight stays.

### **Ukranian Club**

- Opened and closed PM Saturday. Larger premises than Wigton Rd. Methodist but only 50 yards from flood limit.

### **Carlisle Airport**

- Used briefly to house those evacuated by helicopter

### **Norman Street School**

- Opened 1000 hours Sunday 9<sup>th</sup> January as food distribution point. Closed 1900 hours Friday 14<sup>th</sup> January.
- Provided a total of 2,500 meals on the premises and distributed 2,500 meals to neighbourhood.

### **Currock Road Community Centre**

- Opened 0900 hours Sunday 9<sup>th</sup> January as a food distribution centre. Closed same day.

### **Wigton Market Hall**

- Opened 1800 hours Sunday 9<sup>th</sup> January
- Closed 2000 hours Sunday 9<sup>th</sup> January
- Intended to assist population of Wigton who had been without power. Not really used.

## **Ullswater Community College, Penrith.**

- On standby throughout Sunday 9<sup>th</sup> January but never activated.

### Activation of Centres

- General communications difficulties (e.g. loss of mobile coverage) caused activation problems
- City Council lost access to Emergency Directories, Control Centre Info and contact lists. Could greater use be made of Emergency Communications Directory with wider distribution?
- Churches Together in Cumbria/ Salvation Army were not alerted but self activated

### Staffing

- Staff faced severe difficulties accessing Centres due to road flooding, fallen trees, congestion etc. Despite this the support at most Centres was exceptional. The contribution from volunteers and staff from other agencies cannot be underestimated

### Inter Agency Working

- Agencies worked together extremely well in difficult circumstances
- Support from general public was outstanding
- All resources over stretched
- Many offers of help were not taken up. Better coordination needed

### Power Supplies

- NCTC was established before power supplies went off. Portable generators provided a temporary supply until a United Utilities generator arrived at approx 2000 hours on Saturday 8<sup>th</sup> January
- Portable generators were provided at all other centres

### Resources

- Difficulties accessing pharmacy supplies on Sunday 9<sup>th</sup> January
- Torches in Reception Centre Boxes inadequate
- Reception Centre Staff need better identification
- 'Registered' stickers did not stick well

### Information

- Not enough information circulated
- Heavy reliance on Radio Cumbria who were superb
- WRVS felt they were not involved at management meetings
- Not enough management meetings at Harraby due to pressure of work

### Liaison with Control Centres

- The establishment of Food Distribution Points was very ad hoc and not coordinated well
- Better overall coordination of Welfare and Reception Centres would have been helpful

### Communications and IT

- Reliance on DECT telephones and mains powered switchboards meant many telephone links became unusable
- RAYNET was not activated

### Registration

- High volume of names led to problems in searching and answering enquiries. System ran well apart from this

### Health

- Need for static health information displays in affected areas

### What went well?

- Inter-agency working
- Reception Centre Plan at NCTC
- Contributions from local businesses-  
Tesco, Asda, Morrisons, Currys, Burger King, Quick Save, Sainsburys, Body Shop, Calder Foods, Fenwicks, Allenwood Cattery, Royal Sun Alliance, Sandwich Express, Penningtons, Individual Donations, Offers of accommodation
- Handling of the vulnerable by Social Services

### What did not go well?

- Name matching in Reception Centres
- Establishment of and support to Feeding Centres not well handled
- Offers of help not well coordinated or pursued

## **FUNCTIONAL DEBRIEF – COMMUNICATIONS AND IT**

For further information contact Nathan Parry, Cumbria Constabulary at [nathan.parry@cumbria.pnn.police.uk](mailto:nathan.parry@cumbria.pnn.police.uk)

### **Summary**

The purpose of the Communications and IT debrief was to look at how the provision of IT and communications infrastructure impacted the management of the incident. The focus of the lessons learnt section of the debrief was on what future requirements were identified rather than assessing the viability of particular products or solutions.

The following key points were raised under lessons learnt:

### **The flow of information between Gold and Silver Command**

Due to the volume of information and volume of incoming / outgoing calls the communications infrastructure between Gold and Silver did not function efficiently. In particular upward flows of information in respect of the current position from Silver were delayed, which may have impacted on decision-making.

### **Management of and accessibility to information**

There was insufficient IT infrastructure to ensure that information was collated and presented in a timely manner to either Gold or Silver Command. In addition this hampered our ability to ensure that decision-making based on relevant information could be fully auditable. This falls into a number of categories:

- The need to adopt a common communications mechanism that has breadth of access
- The need to create an updatable repository of up to date information
- The need to provide integrated solutions for information sharing e.g. GIS
- The need to agree an auditable decision making process supported by appropriate technology

Gemini and Cumbria Alert Website were raised as potential solutions that required further investigation.

### **Agreeing and testing our communications and technical infrastructure response to major incidents**

There are a number of areas where we could formalise a communications and IT response to incidents and test more robustly through scenarios how we would deal with catastrophic power failure. This falls into a number of categories:

- Identifying potential Silver command sites and ensuring there is adequate IT provision to support incident management

- Agree a strategy and scenario test for power and telecommunications failure to include:
  - Use and location of top up generators
  - Engagement with mobile phone operators (including operator independent SIM cards)
  - Engagement with utility providers and agreed process for prioritising demand
  - Remote access

### **Pre-emptive communications and cascade processes for incident management**

There was a general requirement for looking into the development of an agreed cascade and mobilisation process for Gold and Silver Command. As part of that work, to assess the requirement to provide pre-emptive communications to partner agencies, alerting them to the potential requirement for their services.

### **Partner Agency and Voluntary Agency Infrastructure**

There was a general requirement to look at what technology partner agencies and voluntary agencies have, whether it is adequate given the role we would like them to play in incident management and how any infrastructure should be used. In addition, where there are voluntary agencies providing communication services, how can we best use them to support the effective management of the incident, e.g. RAYNET (Radio Amateur Network)

**LIST OF ATTENDEES AT THE 18 MARCH 2005 DEBRIEF MEETING**

<b>Name</b>	<b>Organisation</b>
Mike Stephens	AmeyMouchel
Catherine Gregson	Carlisle and District Primary Care Trust
Jason Gooding	Carlisle City Council
John Mallinson	Carlisle City Council
Mike Battersby	Carlisle City Council
Grahame Gunning	Cumbria Ambulance Service
Mike Devereaux	Cumbria Ambulance Service
Brian Horn	Cumbria Constabulary
Christine Twigg	Cumbria Constabulary
Graham Sunderland	Cumbria Constabulary
John Denwood	Cumbria Constabulary
Mike Head	Cumbria Constabulary
Nathan Parry	Cumbria Constabulary
Rod Mackay	Cumbria Constabulary
Ron Smith	Cumbria Constabulary
Steve Turnbull	Cumbria Constabulary
Ted Thwaites	Cumbria Constabulary
Ralph Howard	Cumbria County Council
David Humphreys	Cumbria EPU, Cumbria County Council
Donald Norrie	Cumbria EPU, Cumbria County Council
Bernie Dolan	Cumbria Fire and Rescue Service
Mick Elliott	Cumbria Fire and Rescue Service
Andrew Fraser	Environment Agency
David Keeling	Environment Agency
Julie Dawber	Government Office for the North West (Secretariat)
Kathy Settle	Government Office for the North West (Chair)
Nigel Ellis	Government News Network NW
John Astbury	Health Protection Agency
Phil Davies	Highways Agency
Ray Carolin	HQ 42(NW) Brigade
Mike Graham	Lake District Search and Mountain Rescue Association
Davy Thompson	Maritime and Coastguard Agency
Niall Clarke	United Utilities

## THE MOST SIGNIFICANT THING I HAVE LEARNED IS....

The following statements are those provided by the attendees at the 18 March 2005 debrief meeting in response to the question, “The most significant thing I have learned is.....”

### Pre-Incident Preparation

- “It’ll never happen here” is a useless statement. Scenario plan and regularly train
- Upfront planning and coordination are key
- Exercise the plan regularly with all agencies
- That training and exercising works and must remain high on the agenda

### Responder Warning and Initial Action

- The early requirement for the identification of the potential incident to all agencies by all agencies, so you are not left playing catch up
- You cannot start to respond too soon
- Step back from dealing with the incident and think laterally – Where are we going? What have we done? What information do we not have?

### Co-ordination of Responders

- Whether we like it or not, we are dependent on each other and no one agency can act in isolation
- All agencies and the private sector need to understand the concept of partnership command structures
- The value of building relationships within Gold quickly to allow command to be effective
- The benefit of personal contact (e.g. through training etc) in ensuring good working relationships during the incident
- The importance of establishing clear and robust communication links
- Team work co-ordination needs communication
- The challenge of ensuring good communication between Gold and Silver. It was only after the event that I realised this had been a problem
- Working together works!!!

### Capacity of Responders and Business Continuity

- The resources, capacity, and speed of response of key voluntary agencies e.g. Red Cross
- The need to apply MoD rules/policy flexibly
- Need to plan staffing resources
- That everything can go wrong..... and this needs to be reflected in our Business Continuity plan
- That the business continuity plan and the emergency plan need to complement each other
- The importance of not locating public assets in the same area

- To have confidence in our ability to deal with incidents of this nature – we did well!

### Needs and Capacity of the Community

- The very local, community response was surprisingly strong - this needs to be built on for the future and for it to become a formal element of the response (Parish/Community resilience planning!)
- The scope of assistance needed for vulnerable groups to meet their needs at critical times
- People don't seem to need bottled water after/during the flood! Making an accurate assessment of public needs is difficult.
- Floods have major health implications – both in the acute phase and recovery

### Recovery

- The consequences continue long after the event - dealing with the crisis is the easy part

## ONE KEY ACTION I INTEND TO TAKE FOLLOWING THIS DEBRIEF IS...

The following statements are those provided by the attendees at the 18 March 2005 debrief meeting in response to the question, "One key action I intend to take following this debrief is ....."

### Reviewing Plans

- Contribute to a review of the Local Authority role and promote more training and scenario planning within the Local Authority and other agencies
- Ensure the primary care trusts emergency plan is updated
- Prepare/revise our business continuity plan
- Review action plan cascades
- Review the system of provision of Military Liaison Officers
- Look to work more closely with Local Resilience Forums to understand how IT and communications infrastructure can be used more effectively
- Promote and kick start the parish/community resilience planning process
- Review the existing proposals for the flood defences for Carlisle as part of the strategy. Expenditure of up to £30m planned in the next five years until 2011 to improve standards of protection.

### Improved Training and Exercising

- Take opportunity to attend/participate in exercises
- Promote and participate in multi-agency planning and exercising based upon experience
- To stress the importance of communication to staff at all levels of command and control
- Prepare brief on the military organisation and capabilities in the North West
- To ensure Maritime and Coastguard Agency staff are prepared to react to tasking outwith their "traditional areas of operation" by developing plans and exercises in anticipation of the Civil Contingencies Act

### Sharing Learning

- Disseminate learning, information and experience on health flood management throughout the organisation
- Share lessons learned with colleagues locally and nationally
- Share my experience with others
- Write a report for consideration at the next meeting of LDSAMRA (Mountain Rescue) on the implications of what we (Lake District Search and Mountain Rescue Association) have learned from involvement in the event and these debriefs
- Feedback to the organisation
- Ensure my team has access to the learning contained in the reports

## Resources

- Consider how emergency planning can be adequately resourced in the city council
- Put more staff resources into reception centre arrangements
- Pursue cross border assistance issues
- Draw up cadre list of media staff (supported by Memorandum of Understanding) from organisations
- Maintain a reservoir of senior staff briefed and trained in multi agency Gold and Silver working and other agencies needs and expectations
- Look at Cumbria Constabulary's command resilience for long term incidents (not whether we can do it but how best)

## Monitoring of Debrief Recommendations

- Ascertain if Cumbria Local Resilience Forum will take forward these issues
- Do everything I can to ensure the question of Evacuation Transport is sorted

**RECOMMENDATIONS FROM THE MULTIAGENCY DEBRIEF  
REPORT – AN ACTION PLAN**

<b>Area</b>	<b>Recommendation</b>	<b>Lead Organisation(s)</b>	<b>Deadline (if relevant)</b>	<b>Progress</b>
Pre-alert and alert stage	Meteorological Office and Environment Agency to review information gathering and warning procedures to identify any possible areas for improvement to timeliness and accuracy of pre-incident warnings.	Meteorological Office/Environment Agency	To be agreed by Cumbria Resilience Forum	To be agreed by Cumbria Resilience Forum
Pre-alert and alert stage	Police to do risk assessment on receipt of any severe weather warnings and if required, consider setting up a small multi-agency group to evaluate potential consequences and assess various 'what if' scenarios (e.g. what would happen if the actual rainfall levels were twice those predicted, and how would that affect our response?).	Police		
Pre-alert and alert stage	Environment Agency should review the existing flood protection measures and the design of the new proposed improvement scheme for Carlisle in the light of the flooding experienced.	Environment Agency		
Pre-alert and alert stage	Local Authorities and United Utilities should review the existing drainage system in Carlisle to identify if improvements are possible.	Local Authorities/Untied Utilities		
Pre-alert and alert stage	In line with Government strategy for flood risk management outlined in "Making Space for Water", the Environment Agency to work with partners to explore the feasibility of developing the current warning systems for rivers and coasts to urban drainage and sewers.	Environment Agency		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Pre-alert and alert stage	All organisations to have effective, robust, simple call-out procedures that are disseminated to all agencies and reviewed and updated on a regular basis	All		
Pre-alert and alert stage	All organisations to be alerted as soon as possible once a “major incident” is declared so they can activate their plans (or as a minimum, go on standby) and alert any other agencies that may provide support.	All		
Pre-alert and alert stage	All organisations to proactively offer assistance if they had not been contacted for any reason.	All		
Pre-alert and alert stage	Environment Agency to consider how to promote wider take up of the AVM service.	Environment Agency		
Pre-alert and alert stage	Cumbria Resilience Forum to continue to maintain close working relationships with the media and ensure protocols for the dissemination of incident information are regularly updated.	Cumbria Resilience Forum		
Pre-alert and alert stage	Cumbria Resilience Forum to consider alternative methods of disseminating information, particularly to those who are vulnerable (young, old, disabled, etc).	Cumbria Resilience Forum		
Functioning of Gold and Silver	All organisations to continue to maintain the close and effective working arrangements that were clearly on display during the Carlisle incident.	All		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Functioning of Gold and Silver	All organisations to continue to maintain the close and effective working relationships built up with 'traditional' responder organisations, but also to focus on building relationships with 'new' responders and ensuring they are familiar with the command structures within Gold and Silver.	All		
Functioning of Gold and Silver	Cumbria Resilience Forum to review possible membership of gold and silver to ensure all relevant parties are invited to attend.	Cumbria Resilience Forum		
Functioning of Gold and Silver	All organisations to review their internal resilience, including business continuity plans, to check they can provide 24/7 cover if required (particularly if the incident was to progress over an extended period).	All		
Functioning of Gold and Silver	Police to raise awareness of the most likely locations to be used for Gold and Silver commands, recognising the dynamic decision making process required when deciding on suitable sites in the event of an incident.	Police		
Functioning of Gold and Silver	Cumbria Resilience forum to review business continuity plans for possible Gold and Silver command locations to ensure basic facilities (e.g. Power) can continue to be provided during an incident.	Cumbria Resilience Forum		
Responders	Cumbria Resilience Forum to carry out an awareness raising process to improve understanding of all organisations, roles and capabilities.	Cumbria Resilience Forum		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Responders	All organisations to think flexibly about how they can provide support in the event of an incident.	All		
Responders	All organisations to ensure welfare support for responders can be activated quickly if required.	All		
Responders	All responders to think flexibly about the range of organisations that could provide support during an incident.	All		
Communications and Information for decision makers	Cumbria Resilience Forum to ensure communications systems between Gold, Silver and Bronze commands and any back up plans are fit for purpose.	Cumbria Resilience Forum		
Communications and Information for decision makers	Cumbria Resilience Forum to review communications infrastructure between Gold and Silver commands (including telecommunications and IT links) to ensure networks are resilient and common information sharing protocols are in place. The use of alternative providers of communications infrastructure (e.g. Maritime and Coastguard Agency, Armed Forces) should be considered, along with the further development of appropriate back up plans.	Cumbria Resilience Forum		
Communications and Information for decision makers	Cumbria Resilience Forum to ensure communication systems within Gold and Silver commands are fit for purpose.	Cumbria Resilience Forum		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Communications and Information for decision makers	Cumbria Resilience Forum to explore options for improving information provision into Gold and Silver commands for the response to future major incidents.	Cumbria Resilience Forum		
Communications and Information for decision makers	All organisations to consider how access to their key information sources can be improved.	All		
Co-ordination of resources	Police and Fire and Rescue Service should consider how records of evacuees and searched properties can be co-ordinated quickly and accurately.	Police and Fire and Rescue Service		
Co-ordination of resources	Local Authorities, Police, and the community itself need to improve methods for quickly identifying vulnerable people so that they can receive the support they need during the incident	Local Authorities, and Police working with the community		
Co-ordination of resources	Clarity required on funding responsibilities for the provision of evacuation transport.	Government		
Co-ordination of resources	Local Authorities should review their Reception Centre Plan to ensure overall co-ordination procedures are appropriate, that efficient checking in systems are in place and also consider how to support ad hoc reception centres set up by volunteers.	Local Authorities		
Co-ordination of resources	Local Authorities to consider the computerisation of registration information to assist with dealing with enquires.	Local Authorities		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Co-ordination of resources	Cumbria Resilience Forum should consider how to make best use of and manage local members of the public who choose to volunteer their services during an incident.	Cumbria Resilience Forum		
Co-ordination of resources	Cumbria Resilience Forum should consider how to make best use of and manage offers of assistance and equipment from the public and other responder organisations from outside the Cumbria area (including within the North West region, and across other regions and devolved administrations as relevant). Specific attention should be given to the co-ordination of deployment of equipment and other assets, to ensure they are all tracked and can be returned to their rightful owner at the end of the incident.	Cumbria Resilience Forum		
Co-ordination of resources	Cumbria Resilience Forum should review the training provision for larger voluntary organisations on command and control structures used during an incident to broaden their understanding and facilitate smoother working arrangements.	Cumbria Resilience Forum		
Co-ordination of resources	Cumbria Resilience Forum to continue building on their relationships with the media, looking for opportunities to improve working protocols and to test these using joint exercising.	Cumbria Resilience Forum		
Co-ordination of resources	All organisations to recognise that the media have an insatiable need for information, and can provide a valuable information source to the public if they are given regular advice bulletins and interviews to broadcast.	All		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Co-ordination of resources	Media to review their business continuity plans to ensure they can continue to provide a service to the public during a loss of essential services such as power.	Media		
Co-ordination of resources	The media should where applicable apply (to United Utilities) for protected status under the Electricity Supply Emergency Code, but noting that this will generally only be available to customers who are supplied at high voltage. They should consider robust standby generators for critical activities.	Media		
Co-ordination of resources	Cumbria Resilience Forum to consider further information dissemination methods that could be used, particularly in the event of a power cut.	Cumbria Resilience Forum		
Co-ordination of resources	Cumbria Resilience Forum and the media to review the capacity of their dissemination processes to ensure they can cope with the increased volumes of 'traffic' generated during a major incident.	Cumbria Resilience Forum/Media		
Co-ordination of resources	Government and other partners to consider reviewing their promotion of the "Go in, Stay in, Tune in" message to encourage the public to think about how they would tune in during the loss of essential services such as power.	Government (and other partners)		
Co-ordination of resources	Cumbria Resilience Forum to consider the need for better mutual aid arrangements for press officers (including those outside the affected area / organisations) to provide additional capacity for media monitoring and planning for recovery issues.	Cumbria Resilience Forum		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Co-ordination of resources	All responders to consider locating a media liaison representative(s) in Silver as well as Gold command.	All		
Co-ordination of resources	All responders to review the role of press / media officers and ensure their role is accurately reflected in emergency plans.	All		
Business Continuity	<p>All organisations to identify their critical infrastructure and ensure:</p> <ul style="list-style-type: none"> <li>• where possible, physical changes are made to improve the resilience of the assets themselves</li> <li>• business continuity plans are in place to allow services to continue (where possible) when assets are affected, recognising these services may need to be in a more reduced form than normal.</li> </ul>	All		
Business Continuity	All organisations to review their business continuity plans with regard to staffing, to ensure key functions can continue to be delivered to the wider community during an incident	All		
Business Continuity	Clarity required on the procedures for ensuring that vulnerable people in care homes are not put at risk as a result of power supply disruptions.	Government		

Area	Recommendation	Lead Organisation(s)	Deadline (if relevant)	Progress
Planning, Training and Exercising	<p>Cumbria Resilience Forum to review their training and exercising programme to ensure that:</p> <ul style="list-style-type: none"> <li>• The frequency of severe weather exercises reflected past experience of the frequency of actual incidents (this should be assessed through the Community Risk Register processes required by the Civil Contingencies Act).</li> <li>• Full multi-agency attendance is obtained (including from voluntary organisations), with all staff who could become involved in an incident receiving sufficient training to enable them to handle an incident confidently and effectively.</li> <li>• All aspect of an incident are tested from the initial response, through to the recovery process</li> </ul>	Cumbria Resilience Forum		