

Topic

Transport

Incident / Exercise

Incident: Cumbria Floods November 2009

Background and Context

Between Wednesday 18 November and Friday 20 November 2009, up to 372mm of rain fell on Cumbria. In the 24 hours ending 00:45 on Friday the 20th, 314mm of rain fell on Seathwaite. This is a record daily rainfall for the UK. The rainfall earlier in the week ensured that the ground was saturated in many areas. Flooding occurred in five out of the six Boroughs, the only one escaping being Barrow. The effect on properties was concentrated in Allerdale and South Lakeland with the most significant infrastructure damage occurring in Allerdale.

- One person lost their life
- 2,239 properties affected.
- 250 farms affected
- 25 bridges closed (for over 6 weeks)
- Significant highway road infrastructure damage
- Port of Workington closed (entrance to port obstructed by debris washed downstream)
- 40 out of 300 waste water treatment works affected Economic impact on surrounding areas caused by infrastructure issues
- 3,057 businesses affected
- 80% of businesses in Cockermouth affected by flooding
- Estimated costs of £2m per week to public and private sectors and the Communities caused by increased travel time
- 461 additional pupils requiring school transport
- Lake District National Park had 319 separate reports of damage to the rights of way network.

How the Topic was Handled

Recovery planning began early whilst the response was still on going. This allowed key partners to get together and set up sub working groups on Welfare, Business, Environment, Communications, Finance and Infrastructure, in line with the Recovery Plan, to prepare for the recovery phase and quickly respond once the emergency was over. Community recovery groups were also established. The following case study relates to one year on after the floods to place in context the size; scale and duration of the recovery work.

Road Bridges

In the immediate aftermath of last November's floods, 20 road bridges across Cumbria were closed after they were destroyed or damaged by the unprecedented water levels that hit the county. By the end of October 2010, a total of 17 of the 20 were open to traffic again, with Low Lorton and Little Braithwaite bridges and Scarness Culvert opened in November 2010.

The Grade Two Listed Workington (Calva) Bridge was badly damaged in the floods and required detailed structural analysis before it was determined that it could be repaired. Repair work got underway in June 2010 and is being carried out by Connect Roads, the Balfour Beatty concession company responsible for managing the bridge on behalf of Cumbria County Council. The bridge is expected to open to both traffic and pedestrians by Easter 2011, meaning Workington will once again have two working road bridges (including the temporary road bridge opened in April 2010).

Northside Bridge, Workington (Allerdale)

The remains of the collapsed Northside Bridge have been cleared and work is ongoing to provide a replacement bridge by 2012. In May 2010, people in Workington were invited to a public consultation session to discuss the type of replacement structure they'd like to see. The feedback from this consultation has been used to inform the design brief for the new bridge and a further public exhibition to unveil the design that has been created took place in September 2010.

Bouthray Bridge South Lakeland requires significant repairs as the central pier of the bridge was destroyed. The required planning and listed buildings consents have been approved and the design is complete. Work is now expected to take place in the summer of 2011 during the Environment Agency approved window that allows working in the river.

Major footbridges

As well as destroying and damaging road bridges, 2009 floods took a toll on footbridges around the county. Major footbridge routes in Cockermouth and Workington were badly hit, as were various other public rights of way structures across Cumbria. Major progress has been made on repairing and re-opening these routes that were put out of action. Footbridge progress includes:

Navvies Bridge, Workington

Work is expected to begin on site in May 2011 to replace Navvies Bridge, with a likely completion date at the end of the Summer. The county council's development control and regulation committee has now approved the planning application for the new Navvies Bridge and Cumbria County Council's Cabinet has approved a preferred bidder from the tenders received for carrying out the work. A contractor was appointed week commencing 22 November 2010 to carry out the work

Memorial Gardens (Millers Bridge), Cockermouth

The bridge suffered severe damage in the floods, with a section of the structure collapsing into the River Derwent. Part of it had to be rebuilt and extended to fit the new shape of the river banks, which were heavily eroded by the flood water. The new structure was reopened by HRH The Princess Royal in July 2010 after £150,000 worth of repairs and improvements.

Brewery Footbridge (Waterloo Bridge), Cockermouth

Parapets were damaged and the bridge had to be closed until temporary parapets could be erected in March. Design work for permanent replacement parapets has been completed and they will be installed in due course.

Road Repairs

In addition to the task of repairing and rebuilding bridges, numerous roads around the county were damaged by the sheer volume and force of the water and in need of reconstruction. Road damage was also spread out over a wider area as some routes, even in areas where road bridges were not badly affected, ended up needing resurfacing and reconstruction work such as the A592 on the shores of Ullswater.

One of the first areas that saw flood damaged roads resurfaced was Cockermouth, where Crown Street was repaired in December 2009.

Further resurfacing and repair work has taken place in other towns over the subsequent months, including Keswick and on various rural routes around the county.

Allerdale was the part of the county that suffered the most in terms of road as well as bridge damage and as a result is the district that has seen the majority of the repair work.

Port of Workington

The Port of Workington was successfully dredged and fully operational by mid January 2010, however there was significant damage sustained to areas of the port – mainly the retaining walls on the river bank of Merchant's Quay and the harbour bridge.

A £4m repair programme began in October 2010 which involved repairing the damaged retaining walls and river banks and safely removing the damaged harbour footbridge.

The harbour bridge stopped having any commercial use before the floods as the closure of the Corus plant meant it was no longer used as a rail shuttle route between the port and Corus, however it was a fairly popular footbridge for leisure use. Funding opportunities will continue to be explored to see whether a permanent replacement for the harbour footbridge could be viable, but this will undoubtedly be challenging in the current financial climate.

In terms of the financial impact on the trading operations at the Port of Workington, the swift efforts to dredge the port to return it to full working use paid considerable dividends: in 2009/10 (the financial year when the floods hit) the port registered its fifth consecutive year of turnover growth, with revenues totalling £2m (compared with £1.9m in 2008/9).

Rights of way

The full cost of restoring public rights of way damaged by the floods totals over £4m. An initial funding package was developed with contributions from Defra, Cumbria County Council, North West Development Agency, Nuclear Decommissioning Authority, Sustrans, and the North West Improvement and Efficiency Partnership. Even after these contributions, there was still a £1.7m funding gap to cover the total cost of the necessary repair and restoration works to footpath and bridleways across the county.

Cumbria County Council and the Lake District National Park Authority therefore developed a combined funding package and business case using match funding drawn from nine different partners, with £1.1m from the Rural Development Programme and £642,000 from the county council.

The works programme has prioritised repairs which have the greatest immediate benefit for communities and the tourist economy. Where works have been straight forward with site access and consents in place, some 95 medium and small footpath and bridleway bridges have been restored or replaced, a further 42 paths have had surface repairs carried out, and many stiles, gates and signs have been replaced. Where works are large or complex, have statutory and practical restrictions on when works can be done and consents needed, preparatory planning and design works are well underway. In many cases work has been programmed to start in June 2011 (when works can be given consent to take place in rivers). This means that over the course of the next 12 months a further 130 footpath and bridleway bridges will be repaired or replaced and a further 42 paths recovered or restored to their original condition.

Lessons Identified

Key lessons were the need to resource the recovery group with project management and administration support. The first Recovery Coordination meeting was held on 21 November and it was clear more time in recovery training is required. The transition from day to day business mode into immediate action and response was challenging for some of the Senior Managers. This could have been made easier by more focus on training and exercising in recovery.

Engaging with strategic funders at an early stage is essential. Offers of government funding came in after every minister's visit – each had a different criteria and method of access. Technical support from DCLG, DfT and Defra as well as help from the Government Office was essential in ensuring funding was secured.

One lesson learned from the event was how crucial it was to work with other agencies, particularly Environment Agency (EA), Planning Authorities and Natural England ahead of the reconstruction phase. Repairs to the bridges and structures needs approvals from EA for work within and around watercourses, and a considerable number of bridges are listed structures / ancient monuments. It is therefore crucial to get these bodies on board at an early stage, and they were incorporated within the Infrastructure Recovery Group, playing an active part in advising on the reconstruction process as well as working within their own organisations to assist with the accelerated delivery which these projects needed

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