

Cabinet

Meeting to be held on Thursday 6 October 2016

Report of the Head of Highways Service

Electoral Divisions affected:

All

Flood & Water Management Act 2010 Section 19 Investigation and Report - December 2015 Floods and further actions proposed (Annex 1 refers)

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Executive Summary

The extreme and unprecedented rainfall events of November and December 2015 caused flooding throughout December, affecting approximately 2,500 homes in Lancashire at 229 separate communities. The floods also damaged private gardens, garages and out-buildings, business premises, agricultural property and many items of critical public infrastructure including roads and bridges, water treatment plants, power and communications installations, as well as community buildings such as schools.

In its role as Lead Local Flood Authority, the Council has identified this as a flood event requiring investigation under the requirements of Section 19 of the Flood and Water Management Act 2010, for the purpose of identifying which flood risk management authorities had or still have relevant functions to be exercised in regard to these flood events.

The Lead Local Flood Authority is required to publish the results of this investigation and to notify any relevant risk management authorities of its findings.

The report attached at Annex 1 discharges this responsibility, and starts the major process of publishing the findings of the Lancashire flood risk partnership into how our communities were flooded, so that we can find ways of managing the risks and impacts of similar events in the future.

The schedule attached with Annex 1 identifies the 229 communities in Lancashire affected by flooding in December 2015 and the principal impacts at each location where these have been verified.

Further reports are proposed into the detailed investigations undertaken at each identified location, any flood risk improvements already completed, and the opportunities for further investigations and/or works.

Recommendation

Cabinet is recommended to:

1. Approve the report at Annex 1 as discharging its obligations under Section 19 of the Flood and Water Management Act 2010 in regard to the December 2015 floods; and
2. Approve the proposal for further reports and the means of progressing flood investigations, communications and risk management activities within affected communities identified in the report at Annex 1.

Background and Advice

The Section 19 Duty

Section 19 of the 2010 Act states:

“On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate –

- a) *Which risk management authorities have relevant flood risk management functions, and*
 - b) *Whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.*
- 2) *Where an authority carries out an investigation under subsection (1) it must -*
- a) *Publish the results of its investigation, and*
 - b) *Notify any relevant risk management authorities.”*

Risk Management Authorities and Partnership working

In order to identify the Risk Management Authorities (RMAs) with functions to be discharged in regard to the December 2015 flooding in Lancashire, the flooding mechanisms at each affected community have had to be assessed in an outline format.

For clarity, the RMAs are identified in the Flood and Water Management Act 2010 (FWMA) as follows:

- a. The Environment Agency,
- b. The lead local flood authority,
- c. A district council for an area for which there is no unitary authority,
- d. An internal drainage board,
- e. A water company, and
- f. A highway authority.

Each of these organisations has powers and duties under various legislation and regulations for the responsible management of natural water, flood risk and – in some cases - coastal erosion.

The FWMA requires all the RMAs to cooperate with other relevant authorities in the exercise of their flood and coastal erosion risk management functions.

In Lancashire, the RMAs support partnership working at operational levels by joint investigations on site and through the Making Space for Water meetings, at tactical level by sharing priorities and direction between organisational managers, and at strategic level by engaging with Councillors/Cabinet Members/Senior Managers. Lancashire, Blackpool and Blackburn-with-Darwen are also represented on the North West Regional Flood and Coastal Committee where cross-boundary projects, resources and data are shared with Cumbria, Greater Manchester, Merseyside and Cheshire. There are further connections with the Yorkshire region through minor catchment areas that overlap boundaries in Pendle District, which are described in more detail within the report at Annex 1.

Other responsible parties

Apart from the RMAs, it is important to recognise that other organisations have an interest in understanding and responding to the flooding mechanisms from December 2015, and in particular, land owners have various responsibilities for managing surface water drainage across their land. These parties are not RMAs and are not identified within the Section 19 report.

Where detailed investigations identify site-specific issues to be addressed by other parties, the RMAs engage with them to share information and to develop improvement actions/projects.

The Section 19 Investigation and report for the December 2015 Flooding Events in Lancashire

Lancashire County Council (LCC) is the Lead Local Flood Authority (LLFA) in Lancashire. The Lancashire and Blackpool Local Flood Risk Management Strategy 2014 – 2017 (LFRMS) identifies in Section 4.6 that an investigation may be triggered subject to the likelihood and consequence of flooding.

Whilst the likelihood of December 2015's flooding events occurring again in the same combination of extreme weather conditions is statistically remote, many local communities were affected in much the same way at that time as they have been previously and since. It is reasonable to conclude that the likelihood of re-occurrence at a community level is relatively high in a number of locations.

The consequences of December 2015's flooding were extreme in terms of extent and duration of flooding, numbers of homes and businesses impacted, impact on critical public infrastructure, and cost of repairs.

On these considerations, an investigation under Section 19 into the December 2015 floods is appropriate.

The December 2015 floods were of such a magnitude that previously-adopted approaches to Section 19 investigations into particular floods are not appropriate. For example: new data on addresses and flood damage were still being received every day during March and April 2016 and are still being identified on an ad hoc basis at the time of writing, and the Lancashire Resilience Forum will continue in its 'Recovery' stage of responding to the floods for some weeks to come.

Due to the geographical distribution and magnitude of the flood events experienced across Lancashire throughout December 2015, it has been clear throughout that it would not be possible to complete a detailed investigation into every individual flood incident in a timely manner.

The LLFA has therefore investigated the many floods in December as a single event and has prepared its report on this basis.

The Section 19 investigation report set out in Annex 1 explores the key floods that occurred during December 2015, and identifies the relevant RMAs involved in the emergency response, recovery phase and future flood risk management response to the flooding, to ensure the legal responsibility under Section 19 of the FWMA is met. It will also ensure that essential data and information is captured at the right level to identify all the communities affected, and will help to ensure that available resources are used effectively: to access funding for appropriate flood risk management activities and to deliver relevant actions as soon as possible.

LCC's framework engineering consultant, Jacobs UK Ltd, was engaged from June to September 2015 to inform the Section 19 report, drawing on data made available by the RMAs in Lancashire and from Met Office records.

The local Environment Agency team has provided detailed data and flood maps as part of its wider responsibilities following flooding incidents.

Every RMA has been fully engaged since the flooding events in investigations, repairs and recovery activities, including their own assets and critical public infrastructure. The task of compiling all statements of progress and future intentions for the 229 locations referred to in the Section 19 report is now underway, led by the LLFA.

It is proposed that further reports on progress and future intentions will be published through LCC's website on a three-monthly basis, providing updates from the relevant RMAs on investigations and actions completed at the various flooded sites, for communities to see progress and resolution of as many issues as possible as quickly as possible. These reports will be compiled and published by the LLFA based on data provided by the RMAs. These reports will not form the Section 19 report but are recognised as a necessary follow-on from the Section 19 investigation and commitment made under the LFRMS.

As set out in the LFRMS at Section 4.6:

The investigations that we undertake are anticipated to greatly improve our understanding of flood risk. It is likely that flooding will happen in locations that have not previously been affected or where other studies have not identified a particularly high risk. In such instances, the flood investigations will be an invaluable tool for understanding the sources and mechanisms of flooding. Follow on works and studies are likely to be necessary in some instances and these will be integrated into our prioritised flood risk management plan.

Flooding Events in December 2015

The report at Annex 1 includes a detailed appraisal of weather conditions leading up to the main flood events in December 2015, and identifies all locations where the RMAs reported flooding to domestic property. It is acknowledged that there may still be gaps in this list of flooded locations, where property owners have not provided their information yet.

Individual daily rainfall totals show that rain fell almost continuously in Lancashire during the months of November and December 2015.

In the lead-up to December 2015, records show that the UK had experienced significant heavy rainfall with three major (named) storms occurring in November. The rainfall in November was almost twice (184%) the monthly average for the region (average based on the period 1981 – 2010). In December, rainfall reached 2 to 4 times the average (based on the period 1981 – 2010) in the west and north of the UK. Storm Desmond on the 4 and 5 December brought record-breaking rainfall totals for the Lake District and the north of England.

As a consequence of this exceptional rainfall, ground conditions were completely saturated from the latter half of November through the whole of December, and river levels were also extremely high. The peak rainfall events of 5 December (relating to Storm Desmond) and 26 December (relating to Storm Eva) are considered to be the key contributory factors to the flooding events on and around those dates.

Put simply, continuing rainfall could not be accommodated by existing ground absorption, stream/river capacity or formal drainage networks, and water remained on the surface, finding its own way to lower ground through any obstacles to flow including houses, business premises and critical public infrastructure.

Detailed investigations

During 2016, RMAs have had the important task of pursuing investigations relating to their areas of responsibility and their relevant functions. In addition, the LLFA has had the task of compiling and producing the Section 19 report.

A significant number of investigations have already been concluded since January 2016, particularly where the flooding impacts were more modest or easily understood, and the conclusions of these investigations will be published as soon as the RMAs can confirm details.

Inevitably many other long-running investigations remain to be concluded, either because of the complexity of the flooding mechanisms to be investigated or because bids for area-wide studies are not yet complete to access funding from various sources (including the RMAs' own funding programmes and/or the Department for the Environment, Food and Rural Affairs' funding - referred to as Flood and Coastal Erosion Risk Management Grant in Aid). Further capital investment may be required for permanent improvement projects arising from the investigations.

Progress with these investigations will be monitored by the LLFA through the District-based Making Space for Water meetings and published as updates to the investigations through LCC's website on a regular basis.

What Next?

Detailed investigations will identify what works and other activities have been carried out at each affected community, and what works and activities are still required.

A key question raised by communities after a major emergency as significant as the December 2015 flooding is likely to be: if the same weather events happened again, what would be different in the impact next time around?

A hard message to give is that if all normal drainage systems were to be overwhelmed again then it is likely that flooding would again occur. However, since December 2015 the following steps have been taken to manage the risk and impact of such an event in the future:

- Many hundreds more households have signed up to receive direct flood warnings from the Environment Agency. Therefore these households will in the future have better warning of impending flooding so will be better able to prepare;

- Many new Flood Action Groups are forming to help residents and other community member to help each other, and to activate local Flood Plans;

- LCC's own communications are improving to give more useful and interactive information in advance of, during and after a flood event;

- The multi-agency response to major flood emergencies is adapting to take account of key lessons learned from December 2015 events;

- Impact of flooding will be reduced where the Flood Resilience Grants have been used to improve property-level defences;

- Recovery after a flood event will be much faster where resilience and protection measures have been engaged since December 2015;

- Small-scale improvements have been researched and invested in by the RMAs. Large scale investments take many years to develop and secure funding but each year will see more of these progressing around Lancashire as opportunities arise;

- A national issue worthy of note: the Association of British Insurers has introduced (April 2016) a new insurance scheme for domestic properties known to be at risk of flooding. It is known as 'Flood Re'. Flood Re isolates the element of flood insurance separately from other elements of household insurance, and provides underwriting for the flood risk from across the

insurance industry to share liabilities, enabling an individual insurance provider to offer appropriate insurance at a more affordable premium. (More information can be found at www.floodre.co.uk).

The impacts of future flooding will be significantly less than they were after December 2015, even in advance of any major investment in works, thanks to the efforts of many people, communities and organisations that were affected by the December floods.

Consultations

The draft Section 19 report has been offered to all RMAs for consultation during the preparation of this report to Cabinet. Timescales for this consultation have conflicted with the traditional summer holiday period and many RMAs feel they would have benefitted from having more time to assess the facts presented (particularly the list of affected communities and identified flooding mechanisms) and to digest the findings of the report.

It is likely that supplemental findings reported by the RMAs will be added to the record as part of the planned exercise to publish future findings on a rolling programme in coming months.

Implications:

This item has the following implications, as indicated:

Legal Implications

The FWMA does not specify the timescale, the level of detail or the reporting format required to meet the obligations on the LLFA set out in Section 19; indeed the requirement is worded so that the LLFA itself identifies 'the extent that it considers necessary or appropriate'. Publishing the report attached at Annex 1 will meet the Council's obligations under Section 19 of the FWMA in regard to the flooding events in Lancashire of December 2015.

The proposed further reports are not part of statutory requirement but form part of the commitment in our LFRMS to use information from flooding events to improve our understanding of flood risk, and to drive relevant further studies and works.

Financial Implications

There are no financial implications arising from consideration of this report.

The costs of producing the Section 19 report have been met from within LCC's Flood Risk Management team's annual revenue budget allocation. Any detailed investigations carried out by this team are met from the same budget.

Capital investment may be required for technical studies and/or permanent improvement projects arising from the detailed investigations. Subject to the findings

of the various relevant RMAs, appropriate funding bids will be made as opportunity arises, to whichever funding sources are most appropriate.

List of Background Papers

Paper	Date	Contact/Tel
All flood records held in FRM team files	December 2015 to August 2016	Rachel Crompton/01772-530150

Reason for inclusion in Part II, if appropriate

N/A