

10 Churchill Drive, Moresby Parks

Flood Investigation Report 53

Published

Flood Event 30/8/2012

This flood investigation report has been produced by Cumbria County Council as a Lead Local Flood Authority under Section 19 of the Flood and Water Management Act 2010.

| Version | Undertaken by | Reviewed by | Approved by | Date |
|-------------|---------------|--------------|-------------|-----------------------------|
| Preliminary | Colin Parkes | Anthony Lane | | 12 th April 2013 |
| Draft | Colin Parkes | Anthony Lane | | 30 th April 2013 |
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Executive Summary

Cumbria County Council as Lead Local Flood Authority has prepared this report with the assistance of other Flood Risk Management Authorities under Section 19 of the Flood and Water Management Act 2010.

The report identifies that 10 Churchill Drive, Moresby Parks, suffered from flooding on 30th August 2012. The main cause of the flood event was a collapsed surface water sewer under the garden of the property.

Three actions have been identified in the report which would minimise the risk of future flooding. The key recommendation to repair the sewer had been completed when this report was compiled.

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Event Background

This section describes the location of the flood incident and identifies the properties that were flooded.

Flooding Incident

10 Churchill Drive is located alongside School Brow in Moresby Parks. A tributary of Lowca Beck is culverted through this residential area and school land on the opposite side of School Brow. The culvert passes under the garden of 10 Churchill Drive. See figures 1 & 3.

10 Churchill Drive, Moresby Parks, Whitehaven, Cumbria, CA28 8UZ.
299634, 519622



Figure 1: Location of 10 Churchill Drive, Moresby Parks.

During the night of 29-30th August 2012, flooding occurred in the garden of 10 Churchill Drive. Water rose up the drive to doorstep level.

Investigation

Rainfall Event

Peak rainfall calculated from radar data at Moresby Parks was about 15mm/hr and occurred at about 2am. The rain started at 9:35pm and finished at 3:45am resulting in 27mm rainfall in 5hrs 10mins.

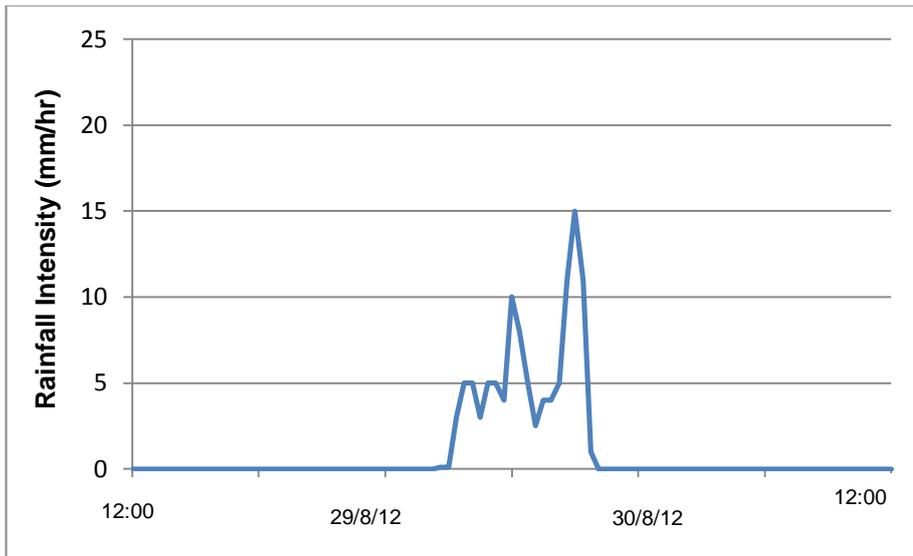


Figure 2. Rainfall intensity at Moresby Parks from 12pm on 29/8/12 to 12pm on 30/8/12.

The average total rainfall for the whole of August is 92mm (1981-2010) at St Bees Head the closest climate monitoring station.

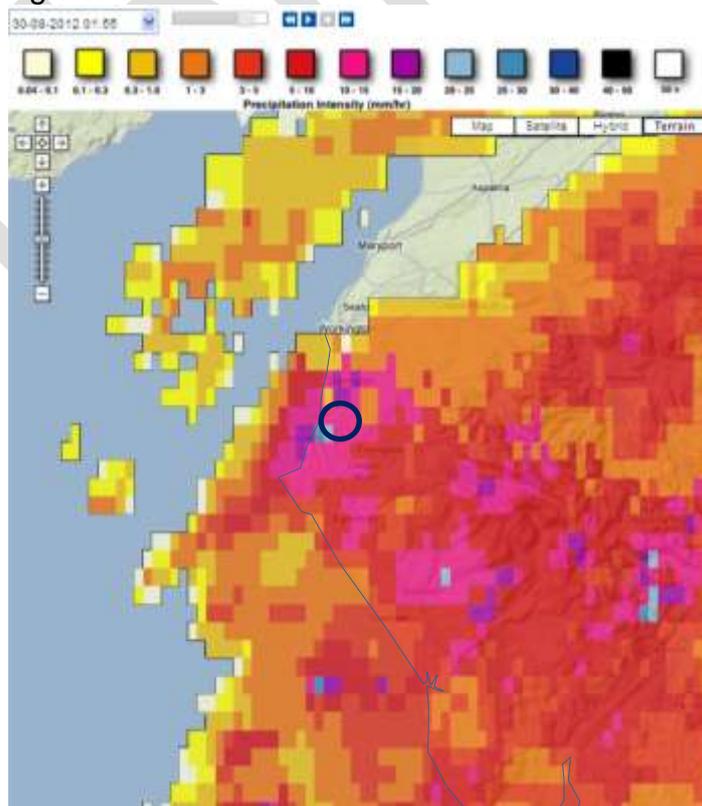


Figure 3. Radar image of the storm as it passed over West Cumbria and Moresby Parks (circled).

Likely Causes of Flooding

Surface Water Sewer

In carrying out a drainage investigation using CCTV, a collapse was found directly underneath the area that flooded caused by a poor pipe connection.

Maintenance of all forms of surface water drainage (including a culvert), is the responsibility of the owner of the land above the drainage (the riparian owner). An exception to this are publicly adopted surface water sewer systems. In this case, the collapse was located within a surface water sewer just upstream of the point where the sewer discharges into a culverted watercourse. This means that maintenance of the collapsed section of surface water sewer is the responsibility of UU who have since completed a repair.

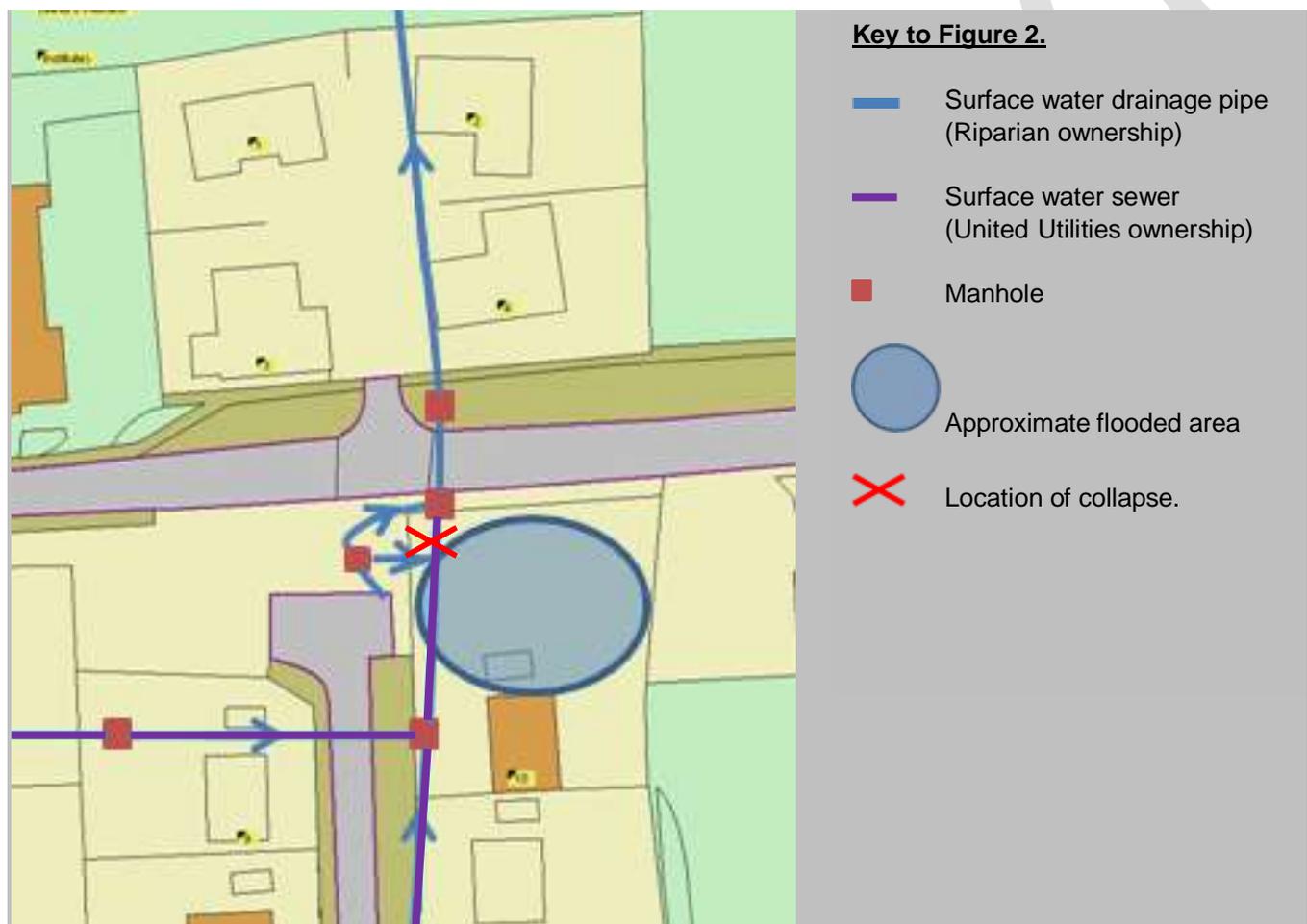


Figure 4. Surface water drainage outside 10 Churchill Drive.

Flooding History

Flooding has been a regular occurrence and has often gone unreported. Notable events occurred here in June and July prior to the August event.

Recommended Actions

| Action by | Recommended Action | How |
|------------------|---|--|
| County Highways | Ensure surface water drainage system is fully functional. | CCTV survey of surface water drainage. COMPLETED. |
| United Utilities | Ensure surface water drainage system is fully functional. | Repair broken surface water sewer. COMPLETED. |
| Resident. | Ensure property is resilient against future flood events. | Consider whether flood protection measures are worthwhile. |

Next Steps

CCC as the LLFA will continue to ensure that any actions identified within the actions table of this report are appropriately taken forward by each Risk Management Authority identified. Actions will continue to be prioritised through the Making Space for Water process and monitored through regular meetings of the group. Details of the MSfWG members and summary of related processes are detailed in Appendix 2.

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Appendices

Appendix 1: Summary of residents feedback to draft report

Work was carried out by UU and the flooding was resolved.

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Appendix 2: Glossary

Acronyms

| | |
|-------|------------------------------|
| EA | Environment Agency |
| CCC | Cumbria County Council |
| UU | United Utilities |
| LLFA | Lead Local Flood Authority |
| LFRM | Local Flood Risk Management |
| MSfWG | Making Space for Water Group |

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Appendix 3: Summary of Relevant Legislation and Flood Risk Management Authorities

The Flood Risk Regulations 2009 and the Flood and Water Management Act 2010 (the Act) have established Cumbria County Council (CCC) as the Lead Local Flood Authority (LLFA) for Cumbria. This has placed various responsibilities on CCC including Section 19 of the Act which states:

Section 19

- (1) 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.

A 'Risk Management Authority' (RMA) means:

- (a) the Environment Agency,
- (b) a 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.

The table below summarises the relevant Risk Management Authority and details the various local source of flooding that they will take a lead on.

| Flood Source | Environment Agency | Lead Local Flood Authority | District Council | Water Company | Highway Authority |
|------------------------------|--------------------|----------------------------|------------------|---------------|-------------------|
| RIVERS | | | | | |
| Main river | | | | | |
| Ordinary watercourse | | | | | |
| SURFACE RUNOFF | | | | | |
| Surface water | | | | | |
| Surface water on the highway | | | | | |
| OTHER | | | | | |
| Sewer flooding | | | | | |
| The sea | | | | | |
| Groundwater | | | | | |
| Reservoirs | | | | | |

The following information provides a summary of each Risk Management Authority's roles and responsibilities in relation to flood reporting and investigation.

Government – Defra develop national policies to form the basis of the Environment Agency's and Cumbria County Council's work relating to flood risk.

Environment Agency has a strategic overview of all sources of flooding and coastal erosion as defined in the Act. As part of its role concerning flood investigations this requires providing evidence and advice to support other risk management authorities. The EA also collates and reviews assessments, maps and plans for local flood risk management (normally undertaken by LLFA).

Lead Local Flood Authorities (LLFAs) – Cumbria County Council is the LLFA for Cumbria. Part of their role requires them to investigate significant local flooding incidents and publish the results of such investigations. LLFAs have a duty to determine which risk management authority has relevant powers to investigate flood incidents to help understand how they happened, and whether those authorities have or intend to exercise their powers. LLFAs work in partnership with communities and flood risk management authorities to maximise knowledge of flood risk to all involved. This function is carried out at CCC by the Local Flood Risk Management Team.

District and Borough Councils – These organisations perform a significant amount of work relating to flood risk management including providing advice to communities and gathering information on flooding.

Water and Sewerage Companies manage the risk of flooding to water supply and sewerage facilities and the risk to others from the failure of their infrastructure. They make sure their systems have the appropriate level of resilience to flooding and where frequent and severe flooding occurs they are required to address this through their capital investment plans. It should also be noted that following the Transfer of Private Sewers Regulations 2011 water and sewerage companies are responsible for a larger number of sewers than prior to the regulation.

Highway Authorities have the lead responsibility for providing and managing highway drainage and certain roadside ditches that they have created under the Highways Act 1980. The owners of land adjoining a highway also have a common-law duty to maintain ditches to prevent them causing a nuisance to road users.

Flood risk in Cumbria is managed through the Making Space for Water process which involves the cooperation and regular meeting of the Environment Agency, United Utilities, District/Borough Councils and CCC's Highway and LFRM Teams to develop processes and schemes to minimise flood risk. The MSfWGs meet approximately 4 times per year to cooperate and work together to improve the flood risk in the vulnerable areas identified in this report by completing the recommended actions. CCC as LLFA has a responsibility to oversee the delivery of these actions.

Where minor works or quick win schemes can be identified, these will be prioritised and subject to available funding and resources will be carried out as soon as possible. Any major works requiring capital investment will be considered through the Environment Agency's Medium Term Plan or a partners own capital investment process.

Flood Action Groups are usually formed by local residents who wish to work together to resolve flooding in their area. The FAGs are often supported by either CCC or the EA and provide a useful mechanism for residents to forward information to the MSfWG.

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Appendix 4: Useful contacts and links

To report flooding: Incident hotline tel: 0800 80 70 60 (24hrs)

Floodline: tel. 0845 988 1188

Cumbria County Council (Local Flood Risk Management):

lfrm@cumbria.gov.uk, www.cumbria.gov.uk, tel: 01228 211330

Cumbria County Council (Highways):

highways@cumbria.gov.uk, www.cumbria.gov.uk, tel: 0845 609 6609

Cumbria County Council Neighbourhood Forum: tel: 01946 505022

cumbria.gov.uk/sayit

United Utilities: tel: 0845 746 2200

Copeland Borough Council

info@copeland.gov.uk, www.copeland.gov.uk, tel: 0845 054 8600

Flood and Water Management Act 2010:

<http://www.legislation.gov.uk/ukpga/2010/29/contents>

Water Resources Act 1991:

<http://www.legislation.gov.uk/all?title=water%20resources%20act>

Land Drainage Act:

<http://www.legislation.gov.uk/all?title=land%20drainage%20act>

Highways Act 1980:

<http://www.legislation.gov.uk/all?title=highways%20act>

EA – ‘Living on the Edge’ a guide to the rights and responsibilities of riverside occupation:

<http://www.environment-agency.gov.uk/homeandleisure/floods/31626.aspx>

EA – ‘Prepare your property for flooding’ how to reduce flood damage including flood protection products and services:

<http://www.environment-agency.gov.uk/homeandleisure/floods/31644.aspx>

Translation services

If you require this document in another format (e.g. CD, audio cassette, Braille or large type) or in another language, please telephone 01228 606060.

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