

FORMAL FLOOD INVESTIGATION

Investigation Ref:	2015-ENF-024
Location:	Granary Close, Kibworth Beauchamp
Date of Flooding:	14/09/2015
Officer:	Michael Warner
Approved:	Victoria Coombes

STATUTORY CONTEXT

Section 19 of the Flood and Water Management Act 2010 (FWMA) states that, on becoming aware of a flood which meets certain predetermined criteria, the Lead Local Flood Authority (LLFA) must undertake a flood investigation in order to determine the relevant flood risk management authorities involved and which flood risk management actions have been (or should be) taken to mitigate future flood risk.

FLOOD INVESTIGATION CRITERIA

Mandatory	
Loss of life or serious injury	<input type="checkbox"/>
Critical infrastructure flooded or nearly flooded from unknown or multiple sources	<input type="checkbox"/>
Internal property flooding from unknown or multiple sources	<input checked="" type="checkbox"/>
Discretionary	
A number of properties have been flooded or nearly flooded	<input checked="" type="checkbox"/>
Other infrastructure flooded	<input type="checkbox"/>
Repeated instances	<input type="checkbox"/>
Investigation requested	<input type="checkbox"/>
Risk to health (foul water)	<input type="checkbox"/>
Environmental or ecologically important site affected	<input type="checkbox"/>
Depth/area/velocity of flooding a cause for concern	<input type="checkbox"/>

SUMMARY OF IMPACTS AND FINDINGS

Source(s) of flooding

Ordinary Watercourse	Main River	Surface Water	Groundwater	Public Sewer	Canal	Land Drainage	Highway Drainage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact (number)

Residential	Business	Other Buildings	Roads	Critical Infrastructure
3 (At least 1 internal)	0	0	1	0

FINDINGS

RAINFALL

'September was a dry and cool month; it was the coldest September since 1993 in the Central England Temperature series, and despite some unsettled spells there were periods of fine sunny weather. The UK registered just over half of the long-term average rainfall for September. All regions of the UK were drier than average, many substantially so, with the exception of Southern England.'

Source: <http://nora.nerc.ac.uk/512018>

However;

'National River Flow Archive data taken from Welland at Ashley gauging station (id. 31020) suggests significant rainfall starting on the 14th September 2015, with flows at the gauging station remaining elevated through to the 16th, coinciding with the timing of the reported flooding incident. It is assumed that the rainfall resulting in this flooding was largely isolated to this location'.

Source: <http://nrfa.ceh.ac.uk/data/station/meanflow/31021>

Based on the available rainfall data, the rainfall incident which fell on the catchment on 14th September 2015 is not considered to be extreme. As there is no evidence that there were previous instances of flooding at this location prior to the installon of the culvert, it is deemed that the rainfall is unlikely to be to only contributing factor to the flooding incident.

EXPLANATION OF FINDINGS

As a result of intense rainfall on 14th September 2015, there was at least 1 No. instances of domestic dwellings experiencing internal flooding of habitable spaces. Witnesses described surface water was being conveyed above ground at 'significant velocity' and that the surface water flowed through properties at Granary Close and subsequently into the public highway.

The primary contributing factors to the flooding are believed to be a combination of intense rainfall and overland flows from the neighbouring school playing fields. It is understood that in the months prior to this event, the existing open watercourse to the rear of the Granary Close properties was culverted in places by the riparian owners without the appropriate consent under the Land Drainage Act 1991 (LDA). This watercourse is fed by a spring noted by Ordnance Survey mapping to be located nearby to the north; as such it is likely that this watercourse has a base-flow under normal conditions. Furthermore, it is understood that a makeshift debris screen was placed at the inlet to the culvert prior to the event on 14th September 2015 by the upstream neighbour to mitigate the risk of blockage from footballs which are reported to have regularly landed within the open watercourse prior to the culverting works being undertaken. Anecdotal evidence identified that this screen was found to be blocked with debris following the event.

People and property were affected by the flooding. Leicestershire County Council spoke to the affected persons to understand the mechanism and physical effects of the reported flooding incident.

As a result of investigations into the possible causes of this flooding incident, the Lead Local Flood Authority concludes that an obstructed entrance within the open watercourse to the downstream culverted section caused flows to emerge out of bank, resulting in surface water flowing through adjacent gardens. Overland flows from the playing fields to the rear of the properties and from the upstream blockage were unable to enter the watercourse at the location of the newly culverted sections. This surface water then flowed overland towards localised low spots resulting in property flooding. Subsequently, the existing highway drainage systems and adopted Anglian Water surface water sewers to which these discharge were not able to sufficiently cope with the intense rainfall and the additional volume of re-directed surface water, resulting in further flooding of public highway and gardens in addition to the internal flooding to properties.

Subsequent to the flooding, enforcement notices were issued, by the County Council under the Land Drainage Act (1991), to the two landowners responsible for culverting the watercourse, requiring the reinstatement of the watercourse. These works have since been completed.

RECOMMENDATIONS / ACTIONS

RIPARIAN LANDOWNERS

According to National Government advice on 'Owning a Watercourse', riparian landowners have certain rights and responsibilities including:

- They must maintain the bed and banks of their watercourse, and also the trees and shrubs growing on the banks;
- They must clear any debris, even if it did not originate from their land. This debris may be natural or man-made;
- They must keep any structures that they own clear of debris. These structures include (but are not limited to) culverts, trash screens, weirs and mill gates.

All riparian owners have the same rights and responsibilities. These responsibilities include the requirement to keep any structures, such as culverts, trash screens, weirs and mill gates clear of debris". However, a landowner has no duty in common law to improve the drainage capacity of watercourse he/she owns.

A full explanation of the rights and responsibilities of riparian ownership are given online at <https://www.gov.uk/guidance/owning-a-watercourse>

Any works associated with an ordinary watercourse will require consent under the Land Drainage Act (1991) from the LLFA prior to any works commencing.

LEAD LOCAL FLOOD AUTHORITY (LLFA)

The LLFA have investigated the flooding event of 14th September 2015 which triggered a formal investigation. The LLFA have identified the Risk Management Authorities and will publish the findings of the report.

The LLFA served notice under the Land Drainage Act (1991) to the landowners for culverting the existing watercourse without consent, which has now been reverted to open watercourse by both parties. The LLFA will continue to monitor the locality and revisit when required, and continue to coordinate the management of flood risk and the interaction of Risk Management Authorities across Leicestershire.

The LLFA have liaised with riparian landowners making them aware of their duties under the Land Drainage Act (1991).

USEFUL LINKS

Environment Agency Guidance 'Owning a Watercourse'
<https://www.gov.uk/guidance/owning-a-watercourse>

Leicestershire County Council Flood Risk Management:
<https://www.leicestershire.gov.uk/environment-and-planning/flooding-and-drainage>

Land Drainage Act 1991:
<http://www.legislation.gov.uk/ukpga/1991/59/contents>

Water Resources Act 1991:
<http://www.legislation.gov.uk/ukpga/1991/57/contents>

STATUS OF THIS REPORT AND DISCLAIMER

This report has been prepared pursuant to the Council's statutory responsibility, under the FWMA, to investigate flood incidents in its area. The statutory duty to investigate is not absolute or exhaustive. Under Section 19 of FWMA, the Council's statutory responsibility is limited to conducting investigations only to the extent the Council deems it necessary.

Where the Council deems it necessary to conduct an investigation, it is required to address two questions under 19(1) of the FWMA. Firstly, the Council is required to identify relevant "Risk Management Authorities"¹. Secondly the Council is required to investigate whether the Risk Management Authorities have exercised, or are proposing to exercise, flood risk management functions set out under Section 4 of FWMA.

The relevant flood risk management authorities identified by the Council are defined at Section 1.4 of the body of this report. The flood risk management functions which the Risk Management Authorities are proposing are described at Section 6 of the body of this report.

Beyond discharging the specific statutory responsibilities under Section 19(1) of FWMA, the intended purpose of this report is solely as a resource to assist Risk Management Authorities and stakeholders to better understand the relevant flooding incident and to mitigate risks going forward.

Although the Council has commented upon contextual issues related to the flood event, it is not the purpose of this report to determine any private rights arising from the flood event.

Nor is the purpose of this report to reach conclusions as to whether any Risk Management Authority or other stakeholder (*e.g. private land owners, public bodies or government agencies*) has breached any duty of care (*whether statutory or common law*) that they may have held.

The Council has, in good faith, sought to locate and collate relevant primary and secondary evidence to prepare this report. However, the Council accepts no responsibility for assumptions or statements made on the basis of evidence which incomplete, inaccurate or both. As such, this report should not be considered as a definitive assessment of all factors that may have triggered or contributed to the flood event.

The Council expressly disclaims responsibility for any error, omission or negligent misstatement in this report to the fullest extent permissible in law.

Further the Council does not accept any liability for the use of this report or its contents by any third party. Where any party wishes to assert any rights or cause of action related to the flooding event they are requested to rely on their own investigations.

¹ As defined by Section 6(13) of FWMA