

2014

# Kirklees Council Flood Investigation

*(3-5 Spinners Way, Scholes, Cleckheaton)*



Flood Management and Drainage Team  
Kirklees Council  
9/26/2014

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## Executive Summary

Kirklees Council, as a Lead Local Flood Authority (LLFA), has a responsibility under Section 19 of the Flood and Water Management Act 2010 to investigate significant flood incidents in its area. The LLFA must investigate the incident and determine which risk management authorities have relevant flood management functions and whether those functions have been exercised. It must publish the results of its investigation and notify any relevant risk management authorities.

The flood incident at 3-5 Spinners Way involved internal flooding to a garage and habitable basement room and is therefore regarded by the council as a significant flood event, meriting an investigation under Section 19 of the Act.

Flooding occurred to the garage and habitable basement room of 3-5 Spinners Way on the 8th August 2014. The flooding followed a sharp and sudden intense downpour of rainfall which resulted in water flowing from the carriageway. The floodwater entered the property via the garage.

Investigations were carried out by the Kirklees Council Flood Management team. This report was prepared by the flood management team in its role as Lead Local Flood Authority.

A variety of investigations were carried out including level survey, interviews and drainage assets.

Following a thorough investigation evidence points to the natural flood routing for the site being through the property cartilage and not out of the site via the road network. An extension of a garage now blocks a route into rear gardens. The property is therefore now reliant on the effectiveness of the highway gullies to prevent flooding.

## 1. Introduction

Kirklees Council, as the Lead Local Flood Authority (LLFA), has a responsibility under Section 19 of the Flood and Water Management Act 2010 to investigate significant flood incidents in its area. Section 19 states:

*(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*

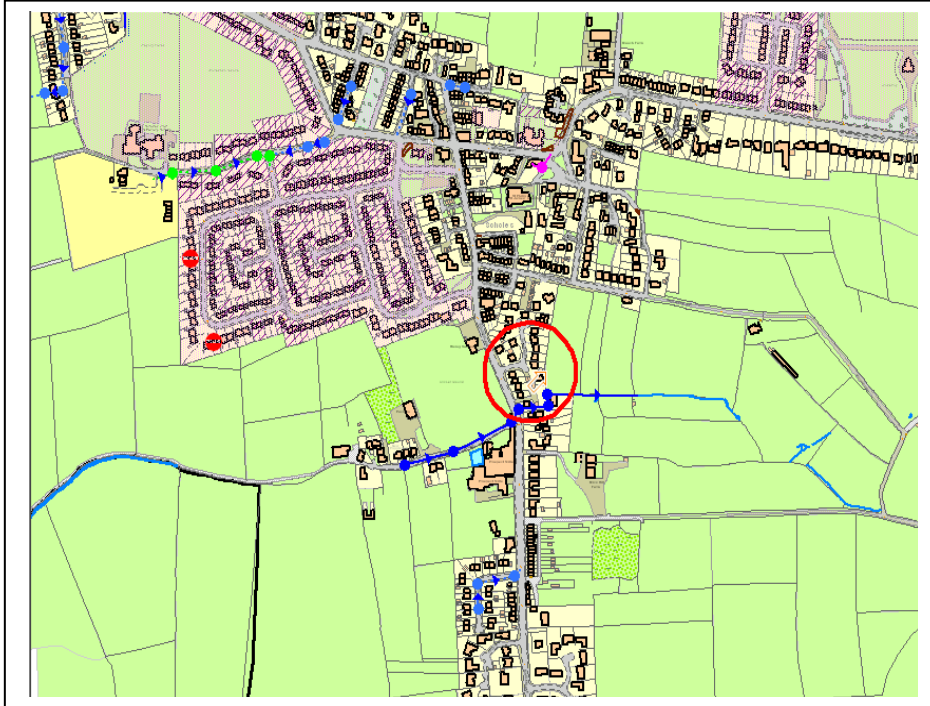
*(b) notify any relevant risk management authorities.*

The council, as LLFA, considers a significant flood to be –

- Where one or more residential or business properties suffer internal flooding
- Where there is a risk to life as a result of the depth and/or velocity of floodwater
- Where critical infrastructure (e.g. emergency services buildings, utility company infrastructure, schools, day centres, hospitals and main transport routes) suffer flooding or obstruction, or were in imminent danger of flooding
- Where 5 properties or more were in imminent danger of flooding
- Where local democratic pressures from elected members, committees, or other elected bodies, might be considered as a factor in determining whether a formal investigation should be carried out

If a local flood occurs which is classed as significant, a formal investigation will be carried out in accordance with Section 19 of the FWMA. The council will use its best endeavours to complete the investigation and report the results within 6 weeks of the date of the flood. The report will be published on the council's website, copies delivered to those authorities deemed responsible for further action in relation to the flooding and copies delivered to those residents and businesses who suffered flooding.

## 2. Location of Flooding



3-5 Spinners Way is an older property located within a more recent development. This property has had a recent extension built in 2011. This development is located off Scholes Lane, Scholes, Cleckheaton.

### 3. The Flood Incident

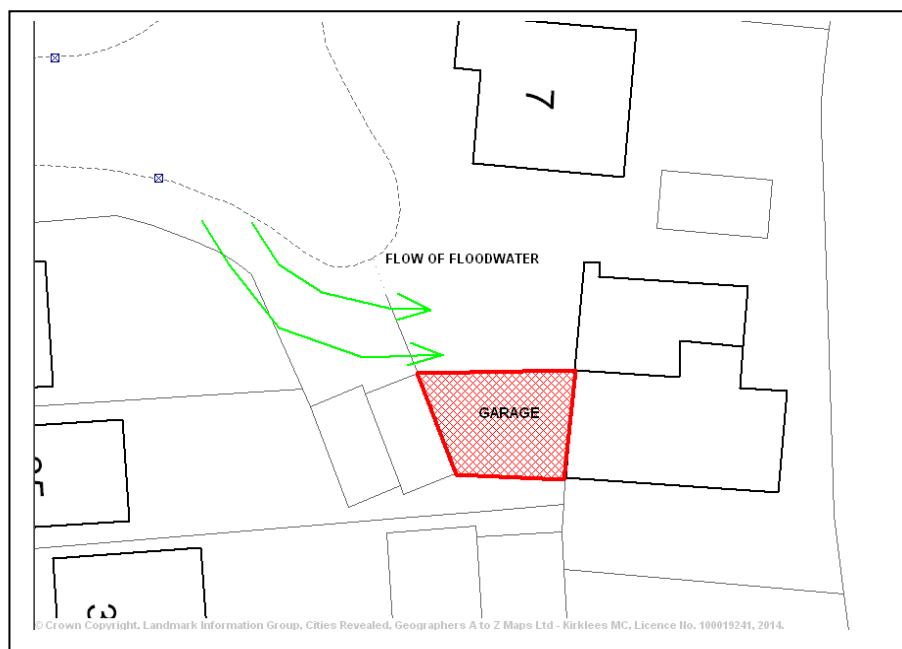
Flooding occurred to the garage and habitable basement room of 3-5 Spinners Way on the 8 August 2014. The basement room is used as a TV lounge.

The flooding followed an intense downpour of rainfall.

The flooding was not witnessed by the Flood Management team. The initial attendance at the site was from the Council's out of hours team to deliver sandbags to the property. Subsequent visits to the site have also been made by the Council's Flood Management team and their findings are included in Section 6.

It was subsequently described by the resident as a build up of water in the road network that overtopped the driveways threshold and flowed towards and entered the property situated at a lower level, causing significant damage.

A survey shows the back of pavement levels adjacent to number 1 and neighbouring double garages are lower than that of the driveway of the flooded property. Water will spill into neighbouring property before working its way to number 3-5.



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## 4. Risk Management Authorities to be Consulted

The following authorities are considered to have relevant responsibilities in the vicinity of the flooded properties and have been consulted during the preparation of this report.

**Lead Local Flood Authority (Kirklees Council)**

**Water and Sewerage Company (Yorkshire Water)**

**The Highway Authority (Kirklees Council)**

## 5. The Drainage System



### Description of Drainage Systems in the vicinity

**Yorkshire Water Drainage Systems** – The plan above shows the recorded extent of the public sewer network in the area. The thicker red lines are the main combined (foul and surface water) public sewers. The dotted blue lines are surface water public sewers. The dotted brown line is a foul public sewer. The solid green line is an abandoned public sewer overflow.

**Kirklees Council Drainage** – The council is responsible for the road gullies in the public highway (indicated with small blue squares on the plan) and their piped connections to the public sewer system. The council has records of a culverted watercourse to the south of the property, no details are held on record as to the construction of this watercourse. The council has no records of separate highway carrier drains in the vicinity.

**Private Drainage** - Connections from individual properties to the shared drainage remain the responsibility of the individual owners. These single property connections are generally unrecorded and are not shown on the plan. Watercourses passing through private land are the responsibility of said land owners (riparian ownership)

**Unrecorded Drainage Systems** – Examination of old ordnance survey maps dating back to 1854 doesn't show anything that isn't already recorded on the up to date map.



## 6. Recent Flood History



### Location of Council recorded flood incidents near to 3-5 Spinners Way

Incident 1 – Cellar flooding, April 2012

Incident 2 – Cellar flooding, November 2012

In summary, there is little recorded history of flooding in the area, either to properties or overland surface flooding.

Anecdotal evidence from Mr Parker of 15 Spinners Way suggested flooding has occurred previously in the same location affecting gardens. In his opinion on one occasion water couldn't get into the gullies, on another he thought the gully to the rear of number 1 was surcharging.

## 7. Investigations Carried out

### 7.1. Attendance by Flood Management team, Kirklees Council (also representing Highway Drainage)

Attended on 22 August 2014 and spoke to family friend and neighbours. Also camered Yorkshire Water's surface water sewer on and off site to garden of 37 Scholes Lane.

Slightly silted, no evidence of blockages or surcharging. It was decided not to involve Yorkshire Water at this stage.

Re-attended on 1 October 2014 to carry out a level survey to understand flooding mechanism and any scope for engineering works.

Water tests using tanker revealed pooling at the turning circle at the top of the road.

Flows of water channelled towards gully outside number 9 with some bypassing at the kerb side.

Water flows to the key gully which is located at an area which is flat for a few metres either side.

Re-visited on 7 October 2014 and carried out CCTV of gully connections. Key gully connection is considered flat and holding water.

## **8. Assessment of Responsibilities**

### **8.1. The Mechanism of Flooding**

#### **Theory 1**

A sharp downpour resulted in an over reliance on a key gully located at the rear of number 1 Spinners Way which on this occasion didn't appear to be able to cope. Water built up to level of gully. A conclusion could be that leaf blockage rendered this inadequate or it also couldn't cope, allowing water to build up before spilling at the back of the kerb

#### **Theory 2**

Yorkshire Water's surface water sewer backed up and surcharged out of the gully.

### **8.2. Allocation of Responsibility for Further Actions**

Highways to check the efficiency of the highway drainage system.

Private individuals to look at ways of passing water to rear of property

There is no evidence that the main public sewer (owner by Yorkshire Water) is defective or requires maintenance works. There is no requirement, therefore, for Yorkshire Water to carry out any further work.

### **8.3. Further Actions and Timescales**

It is likely that the flooding will reoccur if similar extreme conditions arise in the future. The owners are advised to look at a way of passing water to the rear of the property.

Kirklees Council highways drainage department to respond to the resident with a view on the efficiency of the highway drainage system within the next 4 weeks.