

## **SHEFFIELD CITY COUNCIL**

### **FLOOD AND WATER MANAGEMENT ACT 2010**

#### **SECTION 19 PRELIMINARY REPORT: INVESTIGATION OF A FLOODING INCIDENT AFFECTING AREAS OF SOUTH EAST SHEFFIELD ON 30 APRIL 2014**

**REPORT DATE: 16 June 2014**

#### **1.0 Introduction**

1.1 Sheffield City Council is undertaking an investigation into flooding that occurred on 30 April 2014 and affected 24 properties at the following locations in South East Sheffield:

- Normanton Spring
- Mosborough
- Frecheville
- Richmond Park

1.2 The City Council is investigating the incident as Lead Local Flood Authority (LLFA) in accordance with its duties under section 19 of the Flood and Water Management Act 2010.

#### **2.0 Storm Rainfall Details**

2.1 Based on reports and recorded rainfall data, the storm event lasted for approximately 60 minutes peaking at about 6.15 pm on 30 April 2014. Reports indicate that the storm was an extreme event that overwhelmed local drainage systems across the South East of the city resulting in overland exceedance flow mainly on the public highway and across open land.

2.2 Neither the City Council nor the Streets Ahead Contractor, Amey, received a flood or rainfall warning prior to the incident and, therefore the emergency plan for dealing with flooding wasn't activated before the storm event.

#### **3.0 Risk Management Authorities**

3.1 The risk management authorities (RMAs) having relevant flood risk management functions relating to the incident are:

- Sheffield City Council (SCC) as LLFA, the RMA for ordinary watercourses and the highway authority;
- Yorkshire Water (YW) as the sewerage undertaker for the Sheffield area.

#### 4.0 **Impact and Causes of Flooding**

- 4.1 The areas affected by property flooding are shown on plan 1 in appendix A of this report. Three areas are located in low spots within valleys and are shown as being at risk on the Environment Agency's Flood Map for Surface Water. These areas are at Normanton Spring, High Street Mosborough and Richmond Park Rise.
- 4.2 SCC's Flood and Water Management team inspected the affected areas on the morning after the incident on 1 May 2014 and obtained reports from residents. At Normanton Springs, an inspection was also undertaken with maintenance staff from the Outwood Academy School, Stradbroke Road.

##### Normanton Spring

- 4.3 The residents reported that the storm resulted in high overland flows from Richmond Park crossing school playing fields and entering properties through rear gardens before issuing onto the public highway. Ten properties were affected by flood water at Haxby Street, Normanton Spring Court and Haxby Place as shown on plan 2, appendix A.
- 4.4 Surveys and investigation work indicate that the main cause of overland flow from Richmond Park and the Outwood Academy school playing fields was from two watercourse culvert inlets as shown on the attached plan. Immediate clearance works were carried out to the main watercourse inlet releasing flow into the culvert downstream.
- 4.5 In the days following the incident, the City Council delivered sandbags to properties on Haxby Street and Normanton Spring Court.

##### High Street, Mosborough

- 4.6 Reports indicate that the flooding at this location was mainly due to surcharging from a manhole on a watercourse culvert located in the garden of 4 Toll House Mead. The flood waters affected 5 properties on High Street as shown on plan 3. Initial surveys and studies indicate that the ageing brick rubble culvert passing in front of the affected properties on High Street is in poor condition. This culvert is in private ownership. The owners have been informed of the condition of their asset and advised that renewal works are required.
- 4.7 It was reported that some surface water run-off from High Street contributed to the flood water at this location.
- 4.8 Following a request after the incident, the City Council distributed sandbags to the affected properties.

#### Smalldale Road, Frecheville

- 4.9 Flooding at this location was due to surface run-off from the road as a result of road drainage being overwhelmed by the intensity of the storm. Flood waters affected 3 properties. Reports also indicated that sewage surcharging from a foul sewer adjacent to the affected properties contributed to the flooding.
- 4.10 In the days following the incident:
- a. Yorkshire Water carried out surveys, root cutting and clearance work to the sewer running adjacent to the affected properties.
  - b. The Council's Streets Ahead contractor, Amey, inspected and cleared road gullies in the area.

#### Richmond Park Rise

- 4.11 Six properties were affected by flooding that are located at the lowest point at the intersection of Richmond Park Rise and Avenue. The flooding was again due to surface run off from the road as the intensity overwhelmed road drainage. The Streets Ahead contractor inspected and cleared gullies in the area in the days following the incident. The properties are vulnerable due to their thresholds being below footway level.

### 5.0 **Recommendations**

#### Normanton Spring

- 5.1 The City Council to:
- a. undertake further detailed surveys of the watercourse culverts from Richmond Park to their outfall to determine their condition and inform landowners of the results;
  - b. assess and advise planned remedial works following completion of the surveys;
  - c. continue work to secure Government grant aid to fund the cost of culvert remedial or renewal works including at this location;
  - d. undertake further clearance work to the main watercourse culvert inlet and install a suitable grillage.

#### High Street, Mosborough

- 5.2 The City Council has:
- a. commissioned a catchment and feasibility study into options to mitigate flooding at this location. The study will report in mid July 2014 with recommendations for flood alleviation work.
  - b. included the culvert asset on its capital programme for Government grant aid funding to be finalised in November 2014.

#### Smalldale Road, Frecheville

- 5.3 a. The Streets Ahead contractor to include the location on the

- priority drainage list for inspection of road gullies.
- b. Yorkshire Water to place the combined sewer on Smalldale Road on an annual check for root infiltration.

#### Richmond Park Rise

- 5.4
  - a. The Streets Ahead contractor to include the location on the priority drainage list for inspection of road gullies.
  - b. The Housing Company, Great Places, to look at installing flood boards to property thresholds.

16 June 2014

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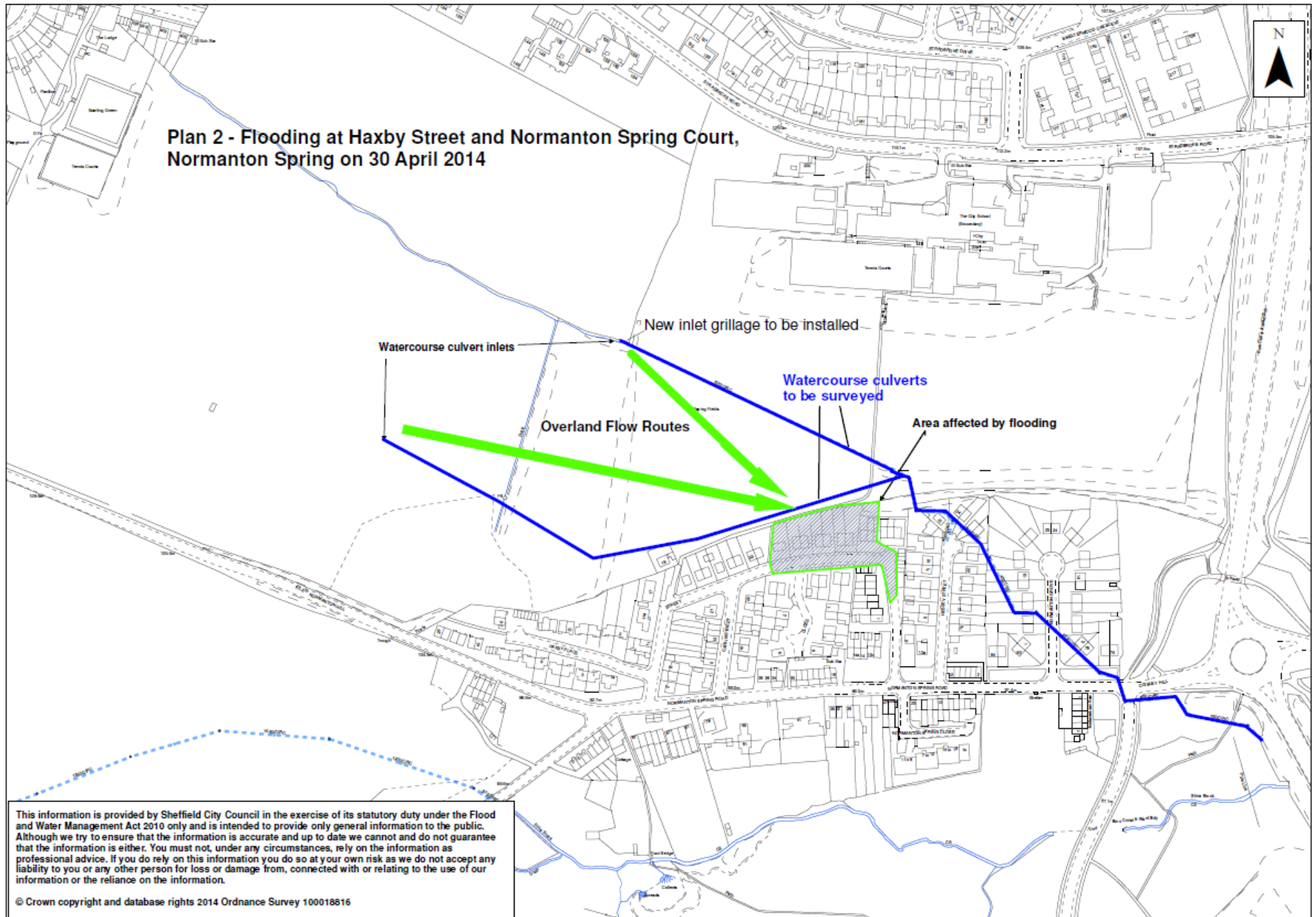
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Appendix A  
Report Plans





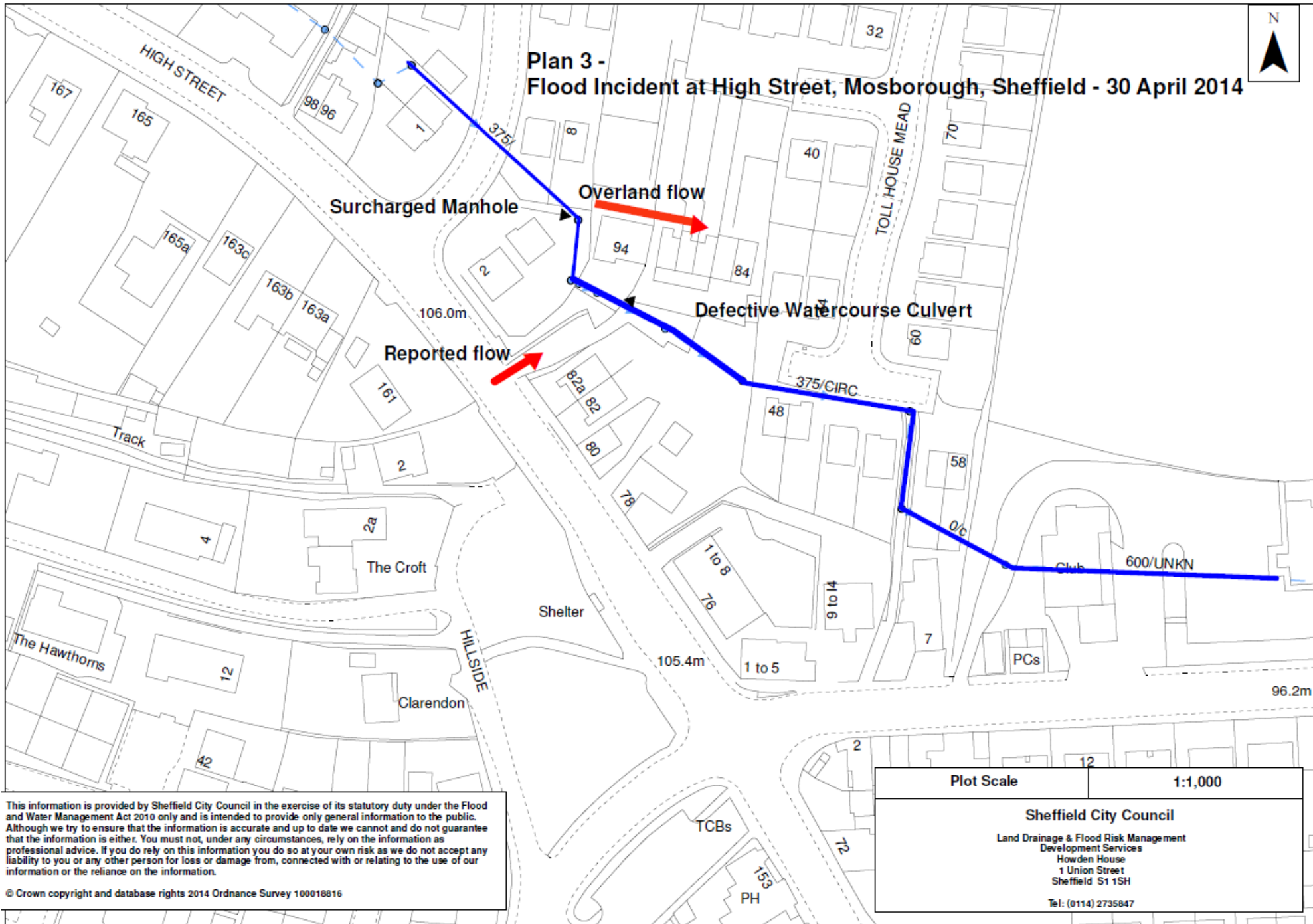
## Plan 2 - Flooding at Haxby Street and Normanton Spring Court, Normanton Spring on 30 April 2014



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**Plan 3 -  
Flood Incident at High Street, Mosborough, Sheffield - 30 April 2014**



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