

Open Report on behalf of Andy Gutherson, Executive Director - Place

Report to:	Flood and Water Management Scrutiny Committee
Date:	21 November 2022
Subject:	Flood Risk Team update (including Section 19 investigations)

Summary:

To provide an update to Committee on the recent work of the Flood Risk team including informing the Committee of the status of all current flood investigations being undertaken in the County.

Actions Required:

The Flood and Water Management Scrutiny Committee is invited to:

- (1) To view the current list of completed and active flood investigations online at <https://www.lincolnshire.gov.uk/flood-risk-management/flood-investigations>
- (2) Inform Democratic Services in advance if they wish to raise any particular sites at the forthcoming Committee meeting.
- (3) Note and comment as required on updates provided on the work of the Flood Risk Team.

1. Background

A standing item to inform the Committee on the position of all current Section 19 investigations in the County has been in place for some time. Whilst this report will still highlight the status of such investigations in the county, the opportunity is also being taken to update the committee on recent work and initiatives for which the Flood Risk Team are involved. This will hopefully provide members of the Committee with a much broader understanding on some of the recent work that has been undertaken in the County.

Investigations under Section 19 of the Flood and Water Management Act 2010

The Committee will be aware that all such investigations are published on the County Council's website by means of an interactive map, whether the investigation is completed,

actively under investigation or awaiting works to mitigate future flooding.

It is a duty under Section 19, Flood & Water Management Act 2010 (F&WMA) for the Lead Local Flood Authority (LLFA) to carry out investigations to identify which Risk Management Authorities (RMAs) have a flood risk management function in connection with the flood and whether they have exercised, or intend to exercise, that function in response to the flood. To assist with this, Lincolnshire County Council as the LLFA makes recommendations for proportionate works to manage future flood risk, to be delivered by individual RMAs or in partnership as considered appropriate or expedient. Such recommendations are also published although this is over and above the requirements of the F&WMA; all recommendations for mitigation works and the RMA leading those works are available to view on the interactive mapping. If Members have any site-specific questions, they are requested to contact the Flood and Water Manager in advance of the meeting.

It is pleasing to report that the review of the S.19 process and implementation of a more streamlined approach has allowed significant progress to be made on the backlog of investigations created following the widespread flooding in 2019 and 2020. This approach has resulted in a quicker turnaround of not only the current incomplete investigations as part of the existing backlog but also new investigations which have emerged, whilst still maintaining the high quality of investigation and report content. This process is being kept under constant review.

With regards to new flood investigations started in Quarter 1 of 2022 there were 3 S.19 investigations started affecting 2 residential and 1 commercial property. Two of those investigations have been completed. This compares with 3 investigations affecting 2 residential properties and 1 commercial property in Q1 of 2021/22.

Figures for Quarter 2 of 2022 are also now available. There were 58 S.19 Investigations started in Q2 affecting 101 properties or areas (79 residential, 10 commercial and 12 streets). This compares with 14 investigations affecting 16 properties (10 residential, 5 commercial and 1 school) in Q2 of 2021/22.

To provide an update on the status of S.19 reports since the committee last met in May 2022, please see Table 1 below. This table shows information pre 16th/17th August weather event and was prepared for the Flood and Water Scrutiny Committee meeting which was scheduled to take place on 19th September 2022.

Number of Reports On-going	89 (50.56% reduction since last reported in May 2022)
Number of completed investigations with considerations still on-going with regards recommendations	168 (112% increase since last reported)
Number of reports commissioned in Q2 2022 (excluding 16 th of August 2022 onwards)	1 (at the time of writing)
Number of reports commissioned in Q2 (2021 – 2022)	10
Number of reports commissioned in Q2 (2020 –	11

2021)	
Number of Reports Circulated to RMAs for Endorsement	8
Number of reports currently being reviewed / revised by Flood Risk Team	63
Reports Awaiting Sign-off	8

Table 1: Status of S.19 investigations pre-16th August 2022

Table 2 below shows the current status of S.19 investigations (as of 2nd November 2022):

Number of Reports On-going	125 (44.9% increase since last reported)
Number of completed investigations with considerations still on-going with regards recommendations	188 (11.9% increase since last reported)
Number of reports commissioned in Q2 2022 (including 16 th – 25 th August 2022)	58
Number of reports commissioned in Q2 (2021 -2022)	10
Number of reports commissioned in Q2 (2020 -2021)	11
Number of reports commissioned in Q3 2022	7 (at the time of writing)
Number of reports commissioned in Q3 (2021 – 2022)	5
Number of reports commissioned in Q3 (2020 – 2021)	14
Number of Reports Circulated to RMAs for Endorsement	29
Number of reports currently being reviewed / revised by Flood Risk Team	41
Reports Awaiting Sign-off	6

Table 2: status of S.19 Investigations as at 2nd November 2022

The total annual number of S.19 investigations and properties affected between 2012 and Q2 of 2022/23 can be seen in table 3 below.

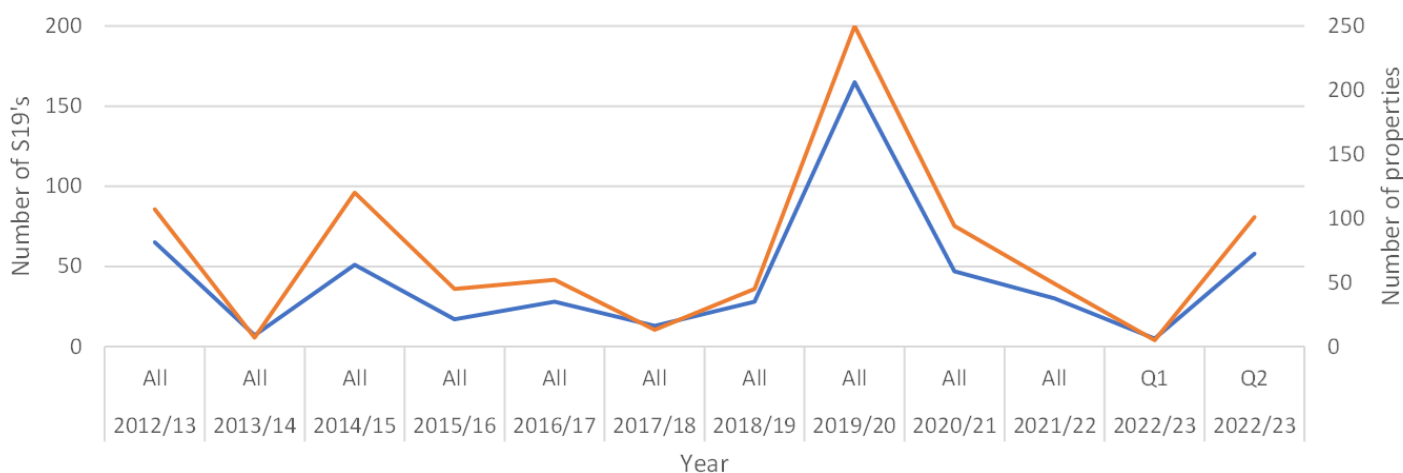


Table 3: Annual totals of Number of S.19 Investigations and properties affected

— Number of S.19's — Number of properties

In addition to the above data, a piece of work has recently been completed by the floods team to collate data for the number of near miss reports received. A near miss report can be identified in a number of ways such as via a S.19 investigation where it is determined that internal flooding did not occur, but outbuildings or gardens were affected, or where instances of flooding are reported directly to the County Council to either the Flood Risk Team or Highways colleagues via members of the public, elected members or partner organisations. The collation of the near miss data can help inform decision making for future programmes of works by taking a proactive, rather than reactive approach to addressing flood risk and drainage issues.

A summary of the number of near miss data collated to date is summarised in table 4 below.

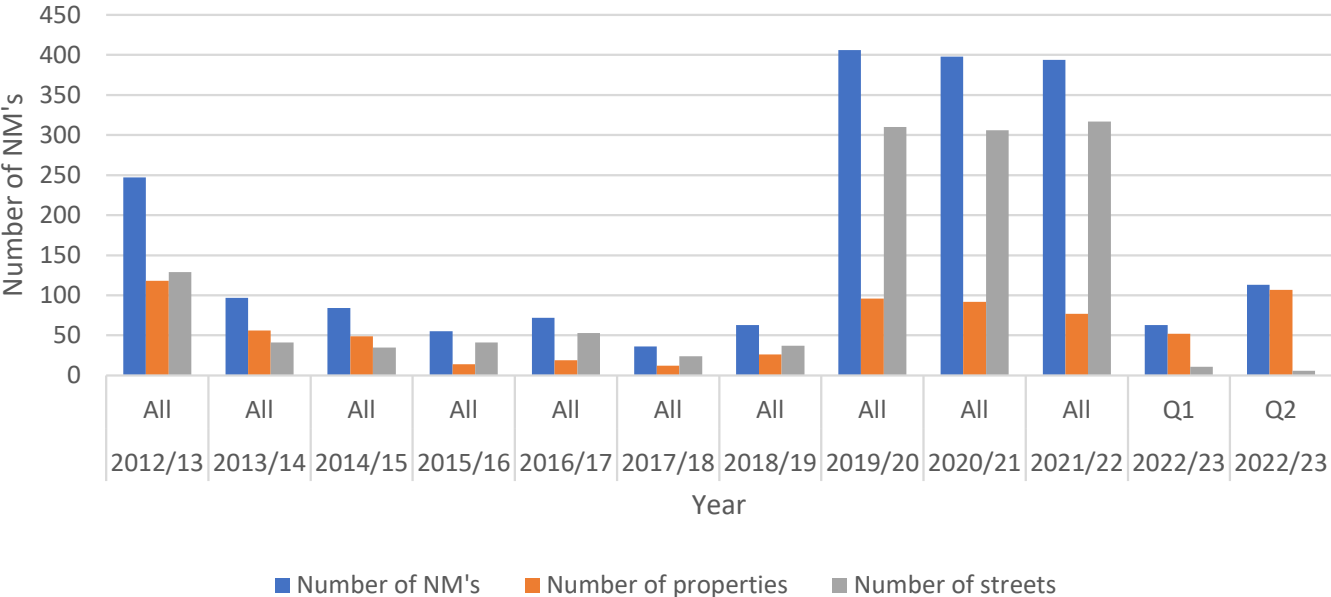


Table 4: Summary of near miss data collated between 2012 and Q2 of 2022/23

Summary of the extreme rainfall events experienced across Lincolnshire – 16th/17th August 2022

Thunderstorms and heavy rainfall moved across England during 16th and 17th August with torrential downpours causing widespread flooding and problems in many areas, with some places experiencing twice the months average rainfall in this short period. The intensity of the rainfall, combined with hard ground linked to a prolonged dry period inevitably caused instances of flash flooding. Unfortunately, parts of Lincolnshire were also badly affected as part of this event.

As is often the case with these type of weather events some places received significant amounts of rainfall within a short space of time whilst locations just a few miles away may have received little or no rainfall. Therefore, predicting the effects of such storms with any degree of accuracy is very challenging. Whilst affected areas in the county were widespread there are obvious clusters in and around Market Rasen in the north and Spalding and Pinchbeck in the south of the county which experienced particularly heavy pulses of rain.

Table 5 below shows some example rainfall totals received for selected areas in the norther part of the county during 16th/17th August.

Location	Duration (hrs)	Rainfall Depth (mm)
Bracebridge Heath (London Road)	14	35.03
Greetwell Lane Near Nettleham (as Nettleham is outside licence area)	2¼	47.00
Middle Rasen (Gainsborough Road)	4	52.58
Market Rasen (Beechers Way)	4	79.35
Market Rasen (Dear Street)	3½	83.73
Market Rasen (The Furlongs)	4	83.75
Louth (Eastgate)	1½	30.70

Table 5 – selected rainfall totals from locations in the north of the county during 16th/17th August 2022

Data received from Welland & Deepings Internal Drainage Board provided rainfall totals for areas within their catchment during late night on 16th August and the early hours of 17th August and these are included in table 6 below. During the period a band of exceptionally heavy rain passed over the Board's area with some 50mm of rainfall widely taken across the district.

Location	Rainfall depth (mm)
Deeping St. Nicholas	116
Fosdyke	187
Spalding (north)	110
Spalding (west)	92
Surfleet	136 (of which 110mm fell in just 4 hours)
Surfleet Seas End	90
Sutterton	168

Table 6 – Selected rainfall totals received from the Welland and Deepings IDB catchment

To illustrate the geographical spread of these, and other rainfall totals received in the area, please see the map in **Appendix A**.

Inevitably homes, businesses and roads were severely affected by such a significant event and a large number of Section 19 investigations have been instigated. The list of reported instances of internal flooding following the event is shown in Table 7 below.

Town	Number of properties flooded	Number of Section 19 investigations commissioned	Number of streets affected	Date of incident	Date investigation commissioned
Beniworth	1	1	1	16/08/2022	17/08/2022
Fosdyke	3	2	2	16/08/2022	17/08/2022

Town	Number of properties flooded	Number of Section 19 investigations commissioned	Number of streets affected	Date of incident	Date investigation commissioned
Gosberton	1	1	1	16/08/2022	19/08/2022
Langworth	1	1	1	16/08/2022	17/08/2022
Lincoln	2	1	1	16/08/2022	22/08/2022
Louth	5	5	5	16/08/2022	17/08/2022, 19/08/2022, 24/08/2022, 25/08/2022
Market Rasen	83	2	10	16/08/2022	18/08/2022, 19/08/2022
Middle Rasen	1	1	1	16/08/2022	17/08/2022
Old leake	1	1	1	16/08/2022	23/08/2022
Pinchbeck	12	9	8	16/08/2022	17/08/2022, 19/08/2022, 24/08/2022
Spalding	37	20	18	16/08/2022	17/08/2022, 18/08/2022, 19/08/2022, 22/08/2022, 24/08/2022
Surfleet	1	1	1	16/08/2022	17/08/2022
Sutterton	1	1	1	16/08/2022	17/08/2022
Tydd Gote	1	1	1	15/08/2022	18/08/2022
Total	150	46	52	-	-

Table 7 – Number of S.19 investigations for internally flooded properties following rainfall on 15th, 16th and 17th August 2022

Of those S.19 investigations commissioned above, site visits had been undertaken for all locations by early September with work commenced on the reports for 40 out of the 46 commissioned. It should be noted that these numbers are subject to change as further information and evidence comes to light post event. Geographic distribution of S.19 investigations following the weather event are shown in the maps in **Appendix B** (northern Lincolnshire) and **Appendix C** (southern Lincolnshire).

Aside from the storm event of 16th/17th August conditions remained relatively dry until the third week in October when periods of more prolonged, at times heavy, rainfall were experienced, particularly during 20th to 23rd of the month. Whilst not at the same intensity as the August event, some particularly heavy bouts of rain unfortunately caused further issues with internal flooding to properties. Local reports of up to 15mm and 25mm of rainfall on 20th and 23rd October respectively have been received. A summary of S.19 investigations instigated in October 2022 is summarised in Table 8 below.

Town	Number of properties flooded	Number of Section 19 investigations commissioned	Number of streets affected	Date of incident	Date investigation commissioned
Utterby	1	1	1	06/10/2022	12/10/2022
Lincoln	1	1	1	20/10/2022	20/10/2022
Stamford	1	NA	1	20/10/2022	NA
Billinghay	1	NA	1	20/10/2022	NA
Osgodby	1	1	1	23/10/2022	24/10/2022
Spalding	1	1	1	21/10/2022	24/10/2022
Great Gonerby	1	1	1	21/10/2022	24/10/2022
Market Deeping	2	1	1	21/10/2022	26/10/2022
Blankney	1	1	1	05/10/2022 19/10/2022	09/06/2022
Total	10	7	9	-	-

Table 8 – Number of S.19 investigations for internally flooded properties during October 2022

Whilst direct operational response to the flooding event itself is not a function of the flood risk team, as part of the wider LLFA and partnership role there will be involvement in any wider review of the response to the incident provided across service areas and by partner organisations. The flood risk team will work closely with colleagues in other areas to assess the responses provided to communities and take any lessons learned from this. Once information has been collated and assessed further updates can be provided. course.

Other workstreams

An update on the Greater Lincolnshire Groundwater Project

As previously reported to this committee this project is being taken forward following a successful bid into the national Flood and Coastal Resilience Innovation (FCRI) programme whereby confirmation has been received that capital funding to the value of £7,551,000 will be available over the six-year period of the project timeframe (1 April 2021 to 31 March 2027).

The FCRI Programme provides the opportunity to develop understanding of a broad range of groundwater risks and opportunities across multiple LLFA areas, leading to a range of practical actions delivered in partnership over the next six years. It is intended that these actions should incorporate multiple benefits, such that environmental and social resilience is built into the approaches developed.

Submission of an Outline Business Case (OBC) for assurance and approval by the Environment Agency's national project assurance groups was made at the end of April 2022. This was led by officers at Lincolnshire County Council and supported by other partners and stakeholders. Whilst the objectives of the project are supported by the panel, there were areas where further information and clarity was requested on the measures that are intended to be implemented as part of the project. Therefore, LCC officers and partners have been working over the summer to further develop the OBC and this was re-submitted for assessment on 31st August 2022.

At the time of writing informal confirmation on the acceptance of the Outline Business case has been received with formal written confirmation expected shortly. Successful acceptance of the OBC will allow drawdown of the remaining allocated funds to support the continued development and delivery of the Greater Lincolnshire Groundwater Project for which the partnership will then be committed to delivering on the objectives set out for this project.

Completion of flood alleviation works at Scothern

It is pleasing to report that flood alleviation works in Scothern have been completed, and ahead of schedule, with roads opened up on 2nd September 2022. The £800,000 scheme, funded through the £2.2million Development Fund allocation, has seen increased drainage capacity through larger pipework and increased gullies installed under Sudbrooke Road as well as creation of a new outfall. This will help prevent surface water flooding in the village which has affected homes and businesses as well as blocking the road. As a gesture of goodwill and for further community benefit, the contractor for the scheme, Fox (Owmbly) has donated four reading benches to Ellison Boulton CE Academy in the village. In addition, and working closely with highways colleagues, the opportunity was taken to carry out road resurfacing in the village, reducing disruption to local residents by preventing the need for further road closures in the near future.

2. Conclusion

Whilst it is pleasing to report the progress with the backlog of S.19 investigations, recent weather events have continued to put pressure on resources as a result of the number of investigations generated. New processes implemented however mean that many of these investigations are already well progressed and the approach and processes undertaken will remain under constant review to ensure maximum efficiency when producing an appropriate, reasonable, and proportionate report. The Flood Risk Team will continue to build on the excellent working relationships it has with other service areas within Lincolnshire County Council, and with other Lincolnshire Risk Management Authorities to deliver partnership projects for the benefit of residents and communities across the county. Further updates will be presented to future meetings of this committee.

3. Consultation

a) Risks and Impact Analysis

N/A

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Rainfall totals recorded within the Welland & Deepings IDB district - 16th/17th August 2022
Appendix B	Geographic distribution of S.19 investigations (northern Lincolnshire) following rainfall event of 16th/17th August 2022
Appendix C	Geographic distribution of S.19 investigations (southern Lincolnshire) following rainfall event of 16th/17th August 2022

5. Background Papers

No background papers within Section 100D of the Local Government Act 1972 were used in the preparation of this report.

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