



County Offices  
Newland  
Lincoln  
LN1 1YL

11 November 2022

**Flood and Water Management Scrutiny Committee**

A meeting of the Flood and Water Management Scrutiny Committee will be held on **Monday, 21 November 2022 at 10.00 am in the Council Chamber, County Offices, Newland, Lincoln LN1 1YL** for the transaction of the business set out on the attached Agenda.

Yours sincerely

A handwritten signature in cursive script that reads 'DBarnes'.

Debbie Barnes OBE  
Chief Executive

**Membership of the Flood and Water Management Scrutiny Committee**  
**(11 Members of the Council and 7 Other Voting Members)**

Councillors R P H Reid (Chairman), T R Ashton (Vice-Chairman), P Ashleigh-Morris, A J Baxter, M Brookes, S Bunney, K J Clarke, A G Hagues, P A Skinner, H Spratt and G J Taylor

**Other Voting Members**

District Councillors Mrs A M Austin (Boston Borough Council), P Vaughan (City of Lincoln Council), Mrs F M Martin MBE (East Lindsey District Council), Mrs L Hagues (North Kesteven District Council), M D Seymour (South Holland District Council), H Crawford (South Kesteven District Council) and I G Fleetwood (West Lindsey District Council)



**FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE AGENDA  
MONDAY, 21 NOVEMBER 2022**

<b>Item</b>	<b>Title</b>	<b>Pages</b>
<b>1</b>	<b>Apologies for Absence/Replacement Members</b>	
<b>2</b>	<b>Declarations of Members' Interests</b>	
<b>3</b>	<b>Minutes of the previous meeting held on 23 May 2022</b>	5 - 10
<b>4</b>	<b>Announcements by the Chairman, Executive Councillors and Lead Officers</b>	
<b>5</b>	<b>Flood Risk Team update (including Section 19 investigations)</b> <i>(To receive a report by Matthew Harrison, Flood and Water Manager, which provides an update to the Committee on the recent work of the Flood Risk team including information of the status of all current flood investigations being undertaken in the County)</i>	11 - 26
<b>6</b>	<b>Environment Agency Update</b> <i>(To receive a report by Morgan Wray, Area Flood and Coastal Risk Manager, which updates the Committee on Environment Agency activities in Lincolnshire including progress on key capital schemes)</i>	27 - 40
<b>7</b>	<b>Anglian Water Update</b> <i>(To receive an update from Jonathan Glerum on Anglian Water's activities in Lincolnshire)</i>	Verbal Report
<b>8</b>	<b>Flood and Water Management Scrutiny Committee Work Programme</b> <i>(To receive a report by Kiara Chatziioannou, Scrutiny Officer, which enables the Committee to comment on the content of its work programme for the coming year)</i>	41 - 44

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**Please note:** for more information about any of the following please contact the Democratic Services Officer responsible for servicing this meeting

- Business of the meeting
- Any special arrangements
- Copies of reports

Contact details set out above.

Please note: This meeting will be broadcast live on the internet and access can be sought by accessing [Agenda for Flood and Water Management Scrutiny Committee on Monday, 21st November, 2022, 10.00 am \(moderngov.co.uk\)](#)

All papers for council meetings are available on:  
<https://www.lincolnshire.gov.uk/council-business/search-committee-records>



**FLOOD AND WATER MANAGEMENT  
SCRUTINY COMMITTEE  
23 MAY 2022**

**PRESENT: COUNCILLOR**

Councillors P Ashleigh-Morris, T R Ashton, M Brookes, A G Hagues, R P H Reid, H Spratt, G J Taylor, K J Clarke and S Bunney

District Councillors Mrs A M Austin (BBC), Mrs F M Martin MBE (ELDC), L Hagues (NKDC), M D Seymour (SHDC), H Crawford (SKDC) and I G Fleetwood (WLDC)

Councillor C Davie attended the meeting as an observer

Councillor A J Baxter attended the meeting as observers via Microsoft Teams

External Agencies:- Morgan Wray (Environment Agency)

External Agencies in attendance via Microsoft Teams:- Jonathan Glerum (Anglian Water

Officers in attendance:- Matthew Harrison (Flood Risk Manager), David Hickman (Head of Environment), Chris Miller (Deputy Head of Environment), Kiara Chatziioannou (Scrutiny Officer) and Thomas Crofts (Democratic Services Officer)

1 APOLOGIES FOR ABSENCE/REPLACEMENT MEMBERS

Apologies were received from Councillor Baxter and Councillor Vaughan (City of Lincoln).

2 DECLARATIONS OF MEMBERS' INTERESTS

No declarations of Members' interest were made at this stage of the proceedings.

3 MINUTES OF THE PREVIOUS MEETING HELD ON 21 FEBRUARY 2022

**RESOLVED:**

That the minutes of the Flood & Water Scrutiny Committee meeting held on 21 February 2022 be approved and signed by the Chairman as a correct record, subject to the following amendments:

- Apologies were received from Councillor Spratt.
- Councillor Seymore (South Holland) was in attendance.

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23 MAY 2022**

4 ANNOUNCEMENTS BY THE CHAIRMAN, EXECUTIVE COUNCILLORS AND LEAD OFFICERS

The Chairman made the following announcements:

- Thanks was given to Councillor Skinner for his chairmanship of the Committee since 2019.
- Councillor Ashton was welcomed to his new role as Vice Chairman of the Committee and was thanked for his longstanding commitment to the Committee.
- Thanks was given to David Hickman, Head of Environment, for his contributions to the Council over the past decade and was congratulated on his new role at the Environment Agency. Chris Miller, Deputy Head of Environment, was to assume David's responsibilities.

Councillor Davie, Executive Councillor for Economic Development, Environment and Planning, made the following announcements:

- He congratulated the new Chairman and Vice Chairman of the Committee on their new responsibilities, and thanked David Hickman for his contributions.
- There had been no recent major flood incidents thanks to agreeable weather conditions; however, the Council remained vigilant and works were underway to ensure sustained flood risk management.

5 FLOOD RISK TEAM UPDATE (INCLUDING SECTION 19 INVESTIGATIONS)

Matthew Harrison, Flood and Water Manager, presented a report on the recent work of the Flood Risk team. The following matters were reported:

- An update was included within the report on Stanhope Road, Horncastle.
- Good weather had helped the Council catch up with the backlog of Section 19 works that had accumulated in 2019-20.
- There had been no recent significant reports of flooding, but the Council remained vigilant for the Summer months.
- The action plan for the Greater Lincolnshire Riparian Project continued to develop with implementation of the joint action plan and focus on raising landowners' awareness of the importance and rights of riparian watercourses. Conveyancing enquiries were also being investigated regarding riparian rights which made data more accessible to the industry.
- The outlined business case for the Greater Lincolnshire Ground Water Project had been submitted with feedback being sought from the Environment Agency.

During consideration of the report, the following comments were raised:

- Further progression concerning the 2019-20 backlog of Section 19 works was welcomed.

**FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE**  
**23 MAY 2022**

- The memorandum of understanding had been created to better communicate responsibility to partners and the public.
- The Council was refocusing on flood risks after having focused resources on public health risks throughout the pandemic.
- Members expressed the importance of ensuring local flood risk assessments were up-to-date, especially as work concerning risk had focused on the pandemic for the past two years.
- The locations of riparian watercourses were available via land registry records; however, it had proven impractical to collate this information in a centralised map for illustration purposes. This was the position nationally and specific data was available when required.
- Works at Kirton was underway; however unanticipated setbacks caused by ground conditions had concerned businesses and residents. Officers clarified that the works were to be completed by the end of June 2022 but extensions to this end date were always a possibility with this type of project. Businesses, residents and the local school and Parish Council were to be alerted of any changes to the anticipated end date.
- Responsibility for drainage at Cross O'Cliffe Hill, Lincoln was not clear between the City Council and the County Council. Officers agreed to investigate this matter further.
- The riparian project was being publicised by networks throughout the flood and water industry and via parish councils.

**RESOLVED:**

1. The Committee reviewed the current list of completed and active flood investigations.
2. That the Committee reviewed the following sites in detail:
  - a. Stanhope Road, Horncastle
  - b. Kirton
3. That the report and the Committee's comments be noted.

**6**      ENVIRONMENT AGENCY UPDATE

Morgan Wray, Area Flood and Coastal Risk Manager, presented an update on Environment Agency activities in Lincolnshire including progress on key capital schemes. An update on the Lower Witham Flood Resilience Project including the following:

- Background and history of flood risk along the watercourse.
- Challenges and opportunities regarding funding bids and potential to link with the South Lincolnshire Reservoir.
- The business case for a strategy update had been signed off in Autumn 2021.

**FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE  
23 MAY 2022**

- Various survey and geotechnical works were underway to inform the developing strategy and management of the Lower Witham.

During consideration of the report, the following comments were raised:

- The national funding formular was a government and partnership funding initiative. Benefits analyses were underway to inform potential funding bids for additional flood risk management works.
- Updates on funding would be regularly presented to the Committee as schemes progressed.
- Dredging at Wainfleet had been completed and a strategic outline of flood risk resilience regarding the embankment was being undertaken.
- The Boston Tidal Barrier was largely completed with works around the wet dock being continued.

RESOLVED

That the Committee note the report and comments made.

7 ANGLIAN WATER UPDATE

Jonathan Glerum, Anglian Water, presented an update on Anglian Water's activities in Lincolnshire. The following matters were reported:

- Works at Altham Terrance, Lincoln had been completed which included clearing access and jetting to remove blockages. Relining works had been undertaken to prevent future issues.
- Works at Scopwick had been completed which included clearing a surface water system and jetting to remove blockages.
- Works at Bourne were ongoing regarding high groundwater. Solutions were being explored collaboratively.
- Surface water management systems were being evaluated in Metherringham including green infrastructure.
- The implementation of Schedule 3 of the Environment Act 2021 and Section 42 were being evaluated by the Department for Environment, Food & Rural Affairs. The Committee was to be updated on outcomes in Autumn 2022.

During consideration of the report, the following comments were raised:

- The water treatment works at Bourne were operational but at a reduced capacity compared to historical use. Work was underway to evaluate optimal use of the existing infrastructure. It was noted that Bourne's water had historically been high quality and offered potential for supplemental possibilities if explored.
- An update on Lincolnshire reservoirs was of interest to the Committee and was to be provided at subsequent meetings.



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23 MAY 2022**

- Sewage management on Boston Road, Holbeach regularly failed due to collapsing infrastructure. Work was currently underway to determine a long-term solution to this known issue and an update would be presented to the Committee at a subsequent meeting.
- Maps detailing drainage across Lincolnshire were available to Members under the Council's data sharing arrangements with Anglian Water. However, as this was commercial data it was not accessible to members of the public. A link to the information was to be shared with Members of the Committee.
- The concept of rain islands was clarified as being green infrastructure gullies strategically placed along highways which worked to help relieve the sewer network.

Members thanked Anglian Water and officers for the successful completing of drainage works at Altham Terrace, Lincoln. Members also sought an update on Lincolnshire sewer systems that emptied into rivers.

**RESOLVED**

1. That the Committee note the update and comments.
2. That the Committee receive information regarding drainage maps across Lincolnshire.
3. That the Committee receive an update on Lincolnshire reservoirs at a subsequent meeting.
4. That the Committee receive an update on works at Boston Road, Holbeach at a subsequent meeting.
5. That the Committee receive an update on sewer systems that emptied into rivers at a subsequent meeting.

**8 FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE WORK PROGRAMME**

Consideration was given to a report from Kiara Chatziioannou, Scrutiny Officer, which invited the Committee to consider and comment on the content of its Work Programme.

**RESOLVED:**

That the Work Programme be approved.

**9 FLOOD AND COASTAL RESILIENCE AND INNOVATION PROGRAMME - SUBMISSION OF OUTLINE BUSINESS CASE**

Members noted the report for information only.

The meeting closed at 11:42

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

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

**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 16<sup>th</sup>/17<sup>th</sup> August weather event and was prepared for the Flood and Water Scrutiny Committee meeting which was scheduled to take place on 19<sup>th</sup> 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 <sup>th</sup> 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

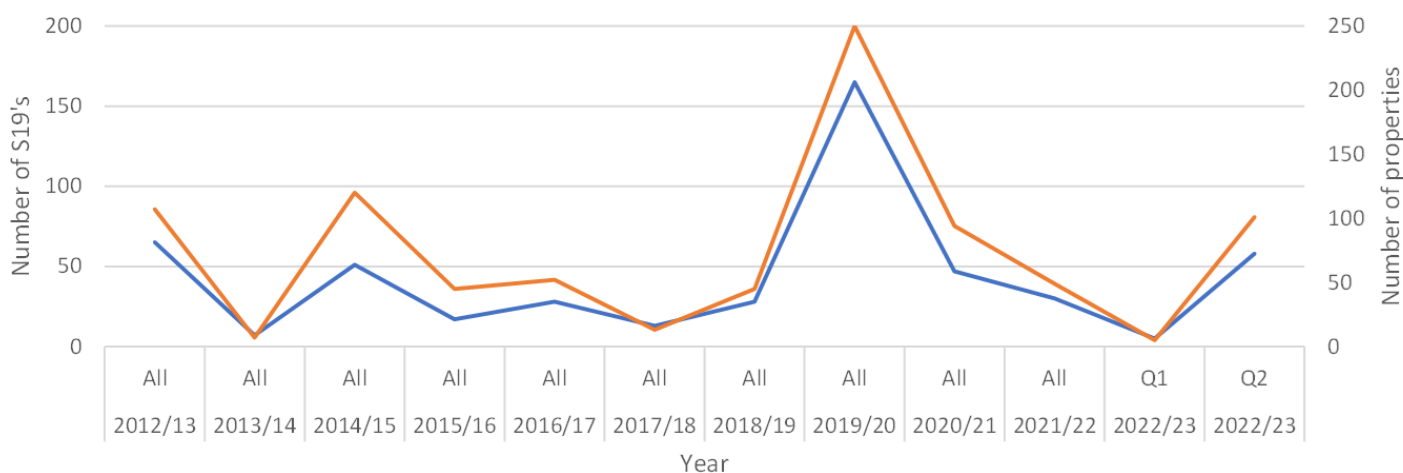
**Table 1: Status of S.19 investigations pre-16th August 2022**

Table 2 below shows the current status of S.19 investigations (as of 2<sup>nd</sup> 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 <sup>th</sup> – 25 <sup>th</sup> 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 2<sup>nd</sup> 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.

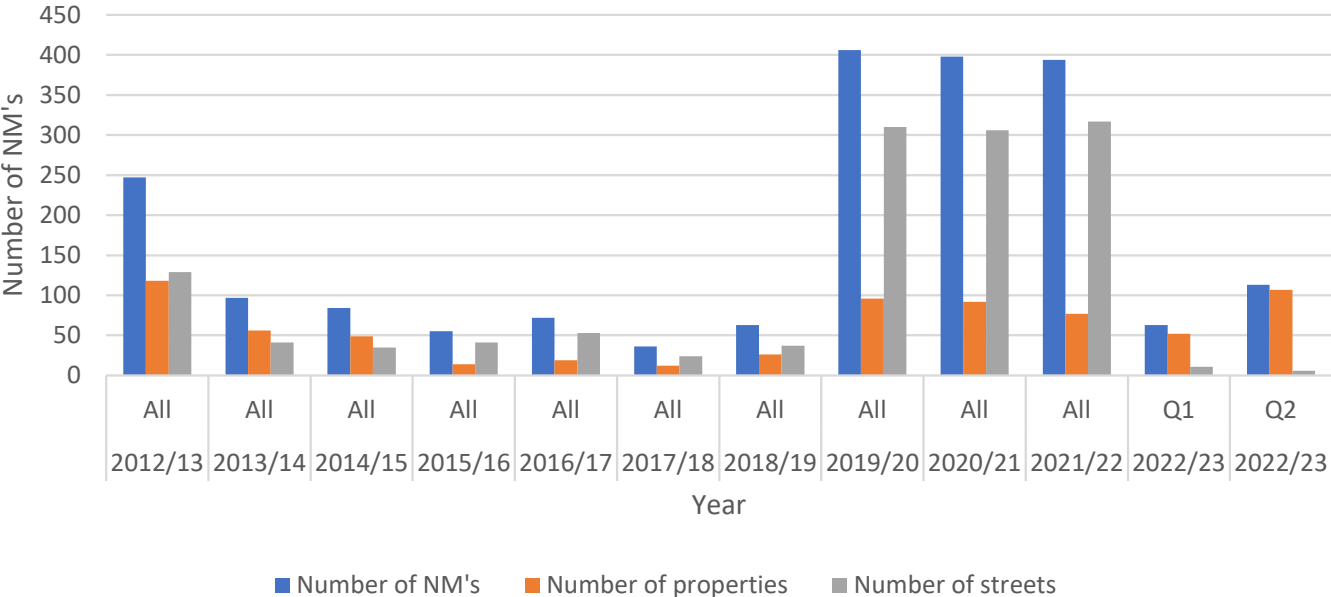


**Table 3: Annual totals of Number of S.19 Investigations and properties affected**

— 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 – 16<sup>th</sup>/17<sup>th</sup> August 2022**

Thunderstorms and heavy rainfall moved across England during 16<sup>th</sup> and 17<sup>th</sup> 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 16<sup>th</sup>/17<sup>th</sup> 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 16<sup>th</sup>/17<sup>th</sup> August 2022**

Data received from Welland & Deepings Internal Drainage Board provided rainfall totals for areas within their catchment during late night on 16<sup>th</sup> August and the early hours of 17<sup>th</sup> 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
<b>Total</b>	<b>150</b>	<b>46</b>	<b>52</b>	-	-

**Table 7 – Number of S.19 investigations for internally flooded properties following rainfall on 15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> 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 16<sup>th</sup>/17<sup>th</sup> August conditions remained relatively dry until the third week in October when periods of more prolonged, at times heavy, rainfall were experienced, particularly during 20<sup>th</sup> to 23<sup>rd</sup> 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 20<sup>th</sup> and 23<sup>rd</sup> 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
<b>Total</b>	<b>10</b>	<b>7</b>	<b>9</b>	-	-

**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 31<sup>st</sup> 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 2<sup>nd</sup> 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

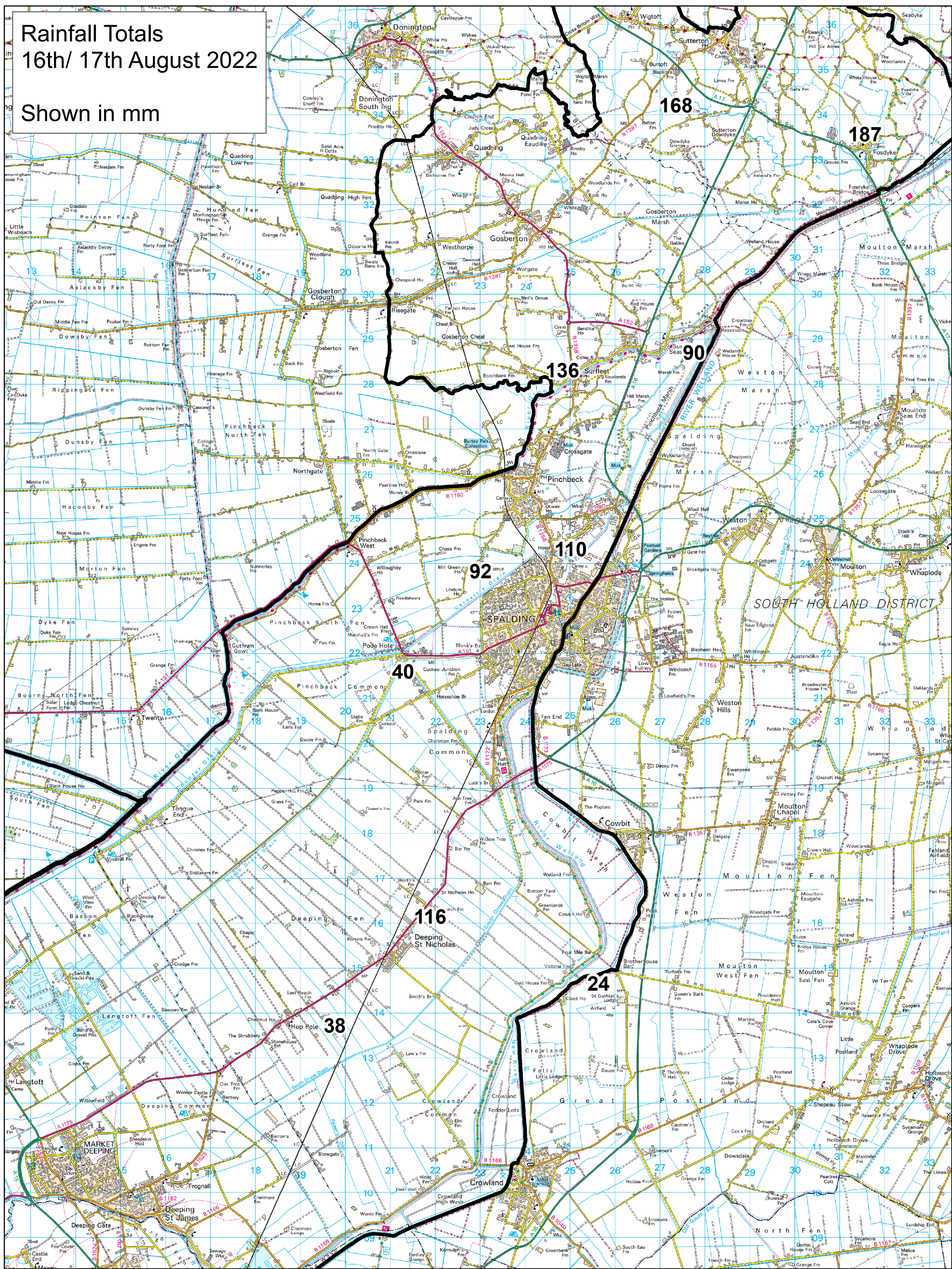
### 5. Background Papers

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

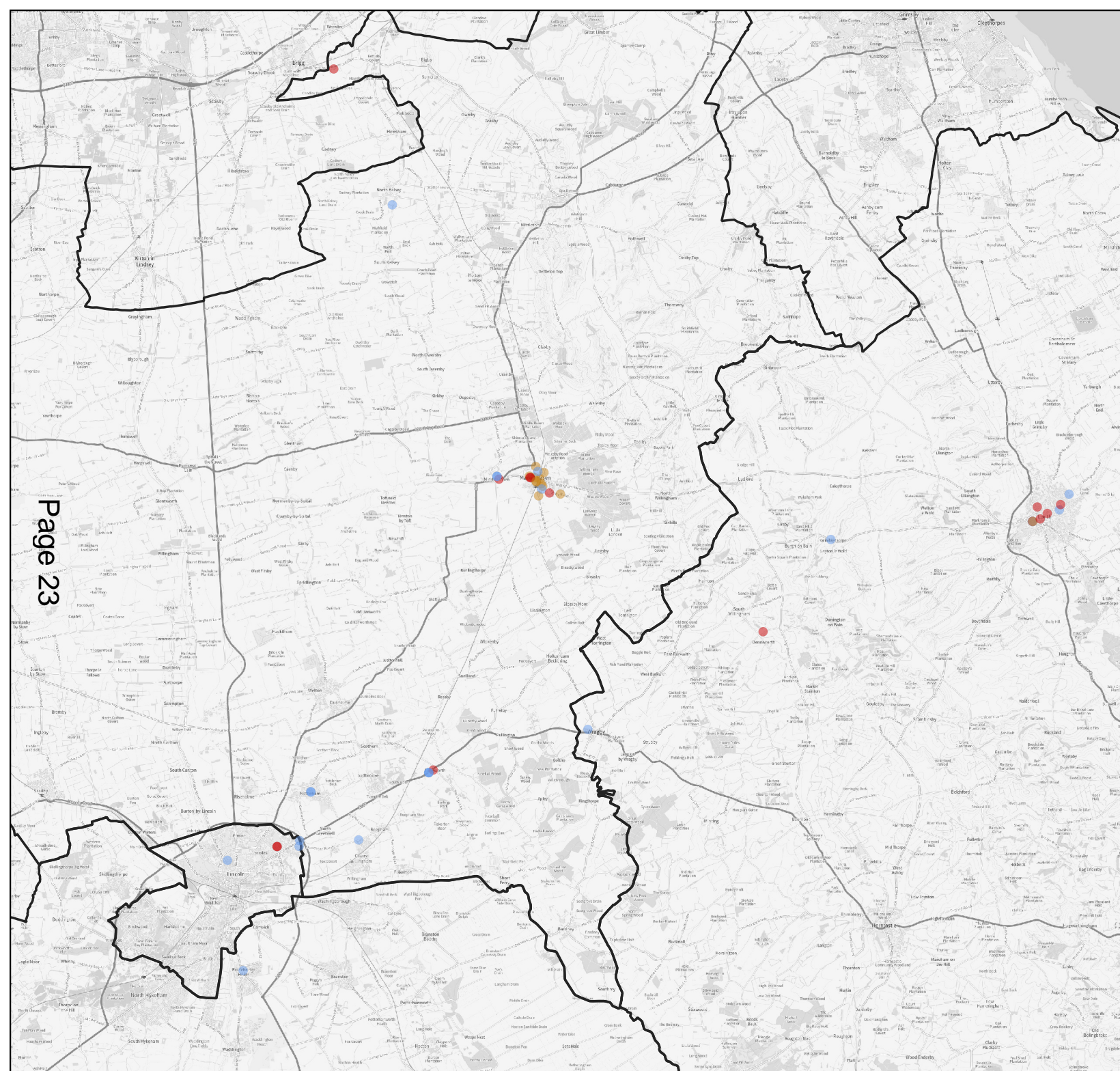
This report was written by Matthew Harrison, who can be contacted on 07771 837565 or [matthew.harrison@lincolnshire.gov.uk](mailto:matthew.harrison@lincolnshire.gov.uk).

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# Rainfall Totals 16th/ 17th August 2022 Shown in mm

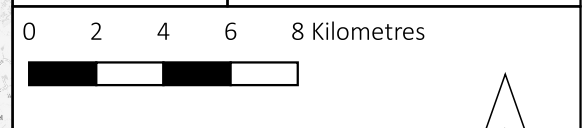


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Project Title August 2022- Flooding

Map Title Reports of Flooding



1:225000

1/9/2022

Ryan Davies

Legend

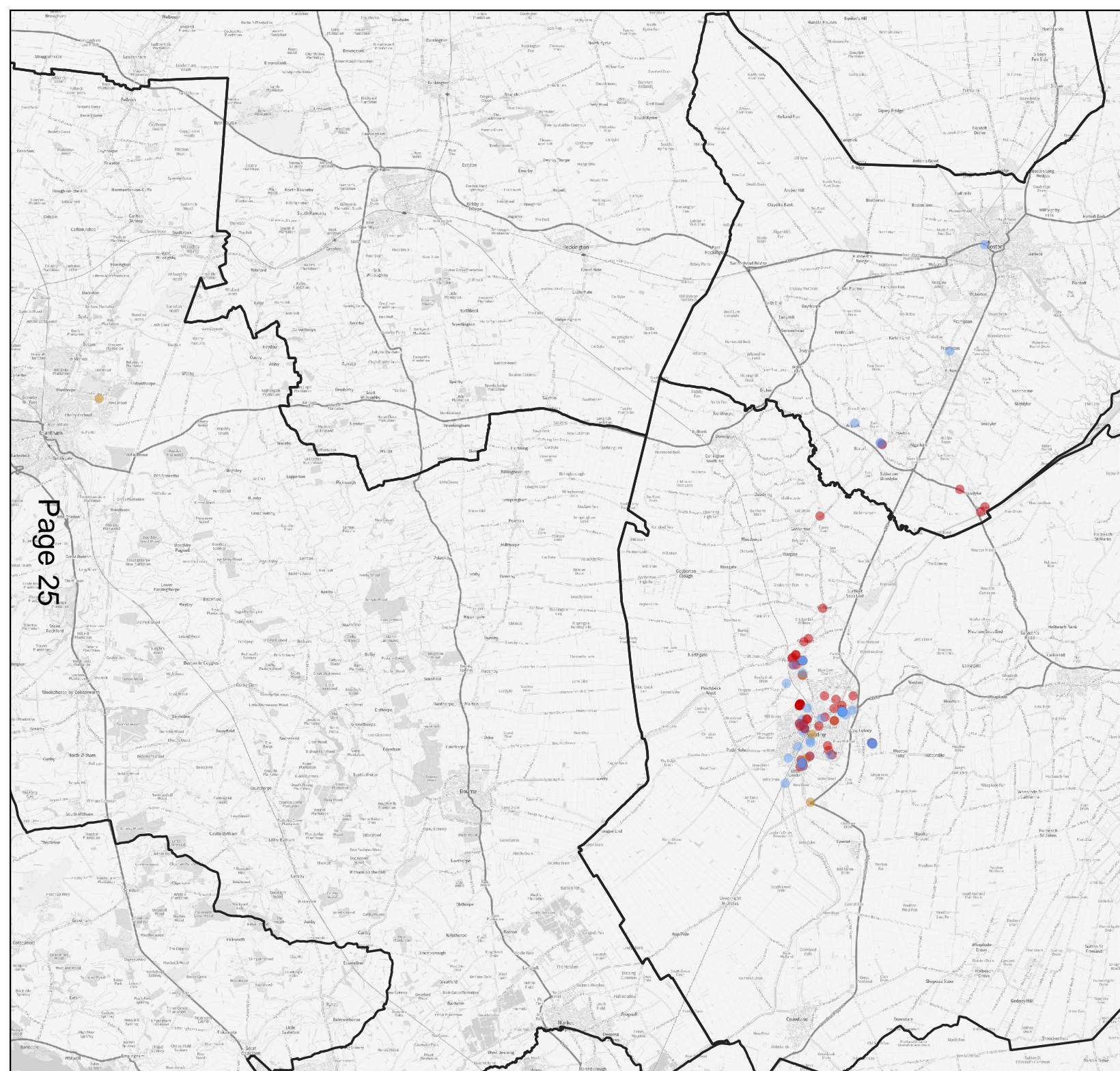
- Flood\_Incidents
- Internal
  - External
  - TBC

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Project Title	August 2022- Flooding
Map Title	Reports of Flooding
0 2 4 6 8 Kilometres 	
1:225000	
1/9/2022	Ryan Davies
<b>Legend</b> Flood_Incidents <ul style="list-style-type: none"> <li><span style="color: red;">●</span> Internal</li> <li><span style="color: blue;">●</span> External</li> <li><span style="color: yellow;">●</span> TBC</li> </ul>	
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**Open Report on behalf of Environment Agency**

Report to:	<b>Flood and Water Management Scrutiny Committee</b>
Date:	<b>21 November 2022</b>
Subject:	<b>Environment Agency Update</b>

**Summary:**

To update Flood and Water Management Scrutiny Committee on Environment Agency activities in Lincolnshire, including progress on key capital schemes.

**Actions Required:**

The Flood and Water Management Scrutiny Committee is invited to review and comment on the contents of this written update and share feedback on projects and key capital schemes with Environment Agency.

**1. Programme Update**

**1.1 Saltfleet to Gibraltar Point Beach Management**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	March 2020
<b>End Date</b>	December 2021
<b>Total project cost</b>	£31,958,170
<b>Partnership Funding required?</b>	N
<b>Total Partnership Funding</b>	N/A
<b>Who is contributing?</b>	N/A
<b>Households better protected</b>	9,352

**Background:**

Beach re-nourishment scheme protecting approximately 20,000 houses, 35,000ha prime agricultural land and 30,000 static caravans as well as major tourism developments between Mablethorpe and Skegness.

### Update since last meeting:

The Project Team have again delivered another successful nourishment campaign which was completed at the end of July. A total of approximately 400,000m<sup>3</sup> of sand was dredged, pumped and profiled. Beaches at Trusthorpe, Boygrift, Huttoft, Wolla Bank, Chapel Six Marshes, Trunch Lane and Ingoldmells were nourished, and we carried out beach re-cycling at Sutton on Sea. There are various minor maintenance projects being undertaken along with detailed asset inspections of the outfalls in the area.

## 1.2 Saltfleet to Gibraltar Point Enhancing Lincolnshire Coast

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Jul-20
<b>End Date</b>	Aug-35
<b>Total project cost</b>	£32,006,000
<b>Partnership Funding required?</b>	N
<b>Total Partnership Funding</b>	N/A
<b>Who is contributing?</b>	N/A
<b>Households better protected</b>	4,676

### Background:

Enhancing Lincolnshire Coast project would be a significant investment from government and therefore needs to deliver the maximum returns for all partners and stakeholders, by 'doing the project right' and 'doing the right project'. Enhancing the Lincolnshire Coast project will be the phase of works that follows on from the nourishment which is currently proposed until around 2040 and will evidence and deliver transformation of flood risk management infrastructure of the East Coast of Lincolnshire.

### Update since last meeting:

Longlisting options will be assessed against multi-criteria analysis tables (currently being prepared) to produce a short list of options for the project.

## 1.3 Wainfleet Flood Resilience Scheme

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Aug-21
<b>End Date</b>	Jul-24

<b>Total project cost</b>	£3,178,824
<b>Partnership Funding required?</b>	Y
<b>Total Partnership Funding</b>	£2,000,000
<b>Who is contributing?</b>	Other Government Departments (OGD)
<b>Households better protected</b>	47

#### **Background:**

In June 2019 two and a half times the month's average rainfall fell in 3 days in the Steeping catchment. This led to overtopping of the defences and ultimately a breach in the right bank of the Wainfleet Relief Channel on 12 June 2019. As a direct result 75 homes and businesses were flooded as well as 2000 acres of agricultural land.

In response to this the Steeping River Steering Group was set up and published a Catchment action Plan which was recently refreshed and published in May 2021. This contains an action to increase the resilience of the raised defences that protect the western side of Wainfleet against overtopping and the effects of climate change. This capital project seeks to deliver this action.

#### **Update since last meeting:**

The Strategic Outline Case (SOC) of the Wainfleet Flood Resilience Project is complete and will now be put through the assurance process. Once approved it will then progress onto the development of an Outline Business Case (OBC). More work will then be required in order to develop option(s), obtain outline costs and then undertake a more detailed analysis on the economic benefits to build the case for investment.

#### **1.4 Boston Barrage-Barrier Works**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	May-14
<b>End Date</b>	Sep-22
<b>Total project cost</b>	£42,147,805
<b>Partnership Funding required?</b>	N
<b>Total Partnership Funding</b>	N/A
<b>Who is contributing?</b>	N/A
<b>Households better protected</b>	525

**Background:**

The Boston Barrier scheme once finished will provide better protection to over 14,000 properties against tidal flooding and is deemed a ‘National Priority Project’ within the Environment Agency’s Six Year Programme.

**Update since last meeting:**

More than 13,700 properties are now better protected from tidal flooding by the primary barrier gate which was used for the first time against a high tide in November 2021 and continues to be available as required.

The project is currently incurring delays associated with the agreement of temporary works that are required before the wet dock can be closed to enable Port of Boston operations to continue without the use of the wet dock. Once temporary works are finalised, the wet dock works can proceed.

The latest construction programme anticipates completion of the Boston Barrier Scheme as a whole in Q4 2023/2024.

Once finished, this work will further protect 525 properties from tidal flooding taking the total number of properties better protected from tidal flooding to 14,256.

**1.5 Boston Upstream Tidal System Sustain Project**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Aug-21
<b>End Date</b>	Mar-25
<b>Total project cost</b>	£6,201,034
<b>Partnership Funding required?</b>	N
<b>Total Partnership Funding</b>	N/A
<b>Who is contributing?</b>	N/A
<b>Households better protected</b>	900

**Background:**

The geographical scope of the project is along the Witham Haven between the Boston Barrier and Grand Sluice (Grand Sluice refurb. being excluded).

The objective of this commission is to sustain a revised standard of service of 5.5m AOD, improve the management of flood risk assets in the town of Boston and reduce the risk of an asset failure.

We are undertaking the following:

- Review of the data: a desktop study of the existing asset data.
- Screening of the data and assessment of the robustness/ usability of data.

- Undertake gap analysis of existing data.
- Provide a report with recommendations, for asset inspection or further surveys as and if required to allow for the SOC to be written including options and costings.
- Prepare a plan for the next stage of the asset inspections. Provide programme, number of people and durations.
- The next stage - surveys will be added under a separate instruction before SOC stage.

**Update since last meeting:**

Ground investigation works now expected February 2023, following challenges in securing site access and business case approval.

**1.6 Gibraltar Point to Freiston Shore System Sustain Project**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Mar-22
<b>End Date</b>	Jan-24
<b>Total project cost</b>	£1,774,948
<b>Partnership Funding required?</b>	N
<b>Total Partnership Funding</b>	£0
<b>Who is contributing?</b>	N/A
<b>Households better protected</b>	2,018

**Background:**

The project is to look at sustaining the primary line of defence of the Wash Frontage from Gibraltar Point to Freiston Shore. The Asset Performance (AP) team have identified key Low spots, cattle poaching and burrowing animal areas of concern which are resulting in red card maintenance activities and concern for bank stability. This project will look to repair the embankment and sustain the whole line back to its nominal standard of protection and service.

**Update since last meeting:**

The Strategic Outline Business Case has been submitted to, and reviewed by, the National Project Assurance Service. As of 1st September, the project team were working through questions raised. Works on site now expected 2024.

**1.7 Lincoln Defences**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Nov-18
<b>End Date</b>	Oct-22
<b>Total project cost</b>	£1,982,802

<b>Partnership Funding required?</b>	Y
<b>Total Partnership Funding</b>	£946,535
<b>Who is contributing?</b>	Other Government Departments (OGD), Anglian Water
<b>Households better protected</b>	347

**Background:**

Lincoln is located in a limestone ridge, through which the River Witham flows. A complex system of channels runs through the City managed by several water level management structures. Key river channels within the City of Lincoln include The River Brant, The Fosdyke Canal, The Sincil Dyke, Boutham Catchwater and Great Gowts Drain. The City of Lincoln has suffered flooding on numerous occasions, most notably in 1947 and 1958.

Water levels are controlled by three sluices (namely Great Gowl Sluice, Stamp End Sluice and Bargate Sluice). The Lincoln Washlands and a system of linear flood defences comprising walls and embankments works in conjunction with the sluices to protect Lincoln from fluvial flooding.

Flood defence assets are generally in good condition, however a section of the defences along the Foss Bank was reported to be leaking through cracks/ joints in the flood wall. Surveys carried out in 2017, also highlighted that sections of the walls along the River Witham are in need of repair work.

The electric components of the three sluices are near the end of their mechanical and electrical life and are unreliable. Good status of the defences is crucial to maintain the existing Standard of Protection in Lincoln and avoid flooding even in relatively moderate flood events.

**Update since last meeting:**

This project is complete.

**1.8 Lincoln Washlands control panels**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Sep-19
<b>End Date</b>	Jun-21
<b>Total project cost</b>	£843,350
<b>Partnership Funding required?</b>	Y
<b>Total Partnership Funding</b>	£60,000
<b>Who is contributing?</b>	Upper Witham IDB
<b>Households better protected</b>	1,969



**Background:**

The project consists of replacing key components to the control panels and instrumentation for the Lincoln washlands on the River Till, River Witham and River Brant. Additional works to bolster site security and safety have also been carried out.

**Update since last meeting:**

This project is complete.

**1.9 Lower Witham Flood Resilience Project**

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Jun-21
<b>End Date</b>	Aug-27
<b>Total project cost</b>	£29,914,388
<b>Partnership Funding required?</b>	Y
<b>Total Partnership Funding</b>	£6,000,000
<b>Who is contributing?</b>	Other Government Departments (OGD)
<b>Households better protected</b>	1,362

**Background:**

In 1997 the Lower Witham Strategy recommended reinforcement of key embankments whilst allowing some areas to flood, in order to relieve the pressure on the system. Since then, 30km embankments have been reinforced, but repeated high flows have damaged more. Storage options have not been implemented, due to availability of suitable sites and difficulties in meeting HM Treasury funding rules of the time.

The works in the 2000s included the creation of Fiskerton Nature Reserve, as environmental mitigation. Now these types of works are seen as offering a real alternative to hard defences, providing room for flood water as well as having a lower carbon footprint and enhancing the local environment. Flooding in 2019 has again highlighted the need to update the long-term plan to manage flood risk in the area.

With revised partnership funding rules, allowing more projects to proceed, and a new interest from landowners in providing public goods such as flood storage, it is hoped that the original vision can now be realised. The Lower Witham is one of six river catchments within the East of England Fens that will come together under the Future Fens: Flood Risk Management programme. This work will contribute towards the ambitions for Climate Resilient Places within the National Flood & Coastal Erosion Risk Management Strategy where there is a specific measure focussed on the Fens.

It is anticipated that a significant capital investment programme will start on the ground in 2025, and in the meantime the Environment Agency’s operational teams will continue to maintain and manage the flood risk assets where resources allow.

**Update since last meeting:**

Survey Data continues to be reviewed, and discussions to agree the baseline scenario and sensitivity runs for the updated model are ongoing. The first newsletter for the project was issued in July and will be updated as the project progresses, along with updates to the Citizen Space webpage for the project. More detailed meetings have been held with key partners and will continue throughout the project as we work together. Data gathering of all flood risk assets in the project area has started.

**1.10 River Slea Flood Resilience Project**

Lead Organisation	Environment Agency
Start Date	Oct-22
End Date	Dec-26
Total project cost	£6,860,709
Partnership Funding required?	N
Total Partnership Funding	N/A
Who is contributing?	N/A
Households better protected	582

**Background:**

This project covers the River Slea main river which runs through the town of Sleaford to Cobblers Lock. In the east of the town the river splits to follow the Sleas Navigation channel to the north and the original course of the Old River Sleas to the south. The navigation follows the contours of the land, dropping the river level from around 13m above sea level in Sleaford, to around 3.5m above sea level via a series of historical locks (not all of which are operational). The Old River Sleas follows a more natural course through the Sleas valley before joining back with the navigation again at Cobblers Lock.

As a river heavily influenced by groundwater flows, the Sleas can suffer from low flows at times making abstractions for drinking water and irrigation a challenge. A flow augmentation scheme supports water levels in the river during dry periods.

Through the town itself, a series of movable structures maintain a water level for aesthetic reasons, although these do interfere with natural river processes, are a barrier to fish and eel migration and increase flood risk, which is why they have to open during high flows. These structures now require significant investment. Structures along the old navigation channel are also in a state of disrepair. With government funding to the EA dependent upon evidenced reductions in flood risk, securing sufficient funding to repair/replace assets with no flood risk benefit is not possible.

### Update since last meeting:

Introductory presentations and the first newsletter were carried out and issued in July to introduce key internal and external stakeholders to the project. A longlisting workshop with internal and external stakeholders has been scheduled for the end of September.

Longlisting options will be assessed against multi-criteria analysis tables (currently being prepared) to produce a short list of options for the project.

The hydraulic modelling baseline scenario and final hydrology is currently being reviewed by the EA. Agreed sensitivity model runs are being prepared by the supplier. Once reviewed, model outputs can be used to inform which options are taken forward and can be used to assist with engagement activities.

#### 1.11 Crowland and Cowbit Washes (Welland Flood Banks) refurbishment

<b>Lead Organisation</b>	Environment Agency
<b>Start Date</b>	Sep-21
<b>End Date</b>	Mar-28
<b>Total project cost</b>	£2,799,759
<b>Partnership Funding required?</b>	N
<b>Total Partnership Funding</b>	N/A
<b>Who is contributing?</b>	N/A
<b>Households better protected</b>	0

#### Background:

The Crowland and Cowbit Washes (the Washes) are not performing as anticipated. The Cradge bank for the Crowland and Cowbit Washes is in need of refurbishment along with inlet syphons. The current focus of the study is to understand the area that benefits from the Washes. The Washes have not been utilised in recent years and the Welland system has been significantly altered since their construction.

This project aims to provide a better representation of flood risk associated with the operation (or non-operation) of the Washes through modelling and mapping. We need to better understand how the Washes function, which communities benefit from their existence and whether any improvements can be made to utilise them more effectively and reduce flood risk. We also need to better understand the implications of failure to store water in the Washes to define the benefit area. The number of properties currently benefitting is estimated at 663.

It is intended that this evidence base will be used in conjunction with that derived for Maxey Cut Banks to support development of an Initial Assessment that supports a strategic approach to continue maintain the standard of protection for Lower Welland catchment in line with the Welland CFMP recommendations.

## **Update since last meeting:**

Following completion of the hydraulic modelling and review, this project is now moving to the next stage of development - the strategic Outline Case (SOC). The long-listing of options has started and Pre-SOC uplift documents for both Crowland and Cowbit and Maxey Cut are being prepared to ensure that we have sufficient funds available to complete the SOC.

## **2. Incident Management Overview**

### **2.1 Local Resilience Forum (LRF)**

Local resilience Forums (LRFs) are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and other professional and voluntary organisations. These agencies are known as Category 1 & 2 Responders, as defined by the Civil Contingencies Act.

Flood Ex 2022: Flood Ex 22 had been postponed until November 14-18 due to the sad news on 8 September of the death of Her Majesty Queen Elizabeth II, as the funeral will be held on Monday 19 September.

FloodEx22 will be Lincolnshire's major LRF exercise for that year. Exercise planning activities are also progressing well with Northamptonshire and cross-boundary areas (including Cambridgeshire and Humber). LNA's Area Incident Team (AIT) are working with neighbouring AIT teams to facilitate the pan-area exercise, and we are working to update critical plans and procedures in readiness for the exercise so they can be tested, including producing a multi-agency Tactical Information Guide for coastal breaches in Lincolnshire.

We are also using the opportunity that FloodEx22 presents to improve our duty officers' overall expertise on tidal flood risk by preparing a variety of tidal flood workshops (more information in section 3.2) that will be rolled out throughout this year. This will maximise the training benefit by extending the opportunity beyond the duty officers that will be participating in the exercise as live players. So far, we have delivered sessions to more than 500 attendees leading to 750+ hours of training in total.

### **2.2 Lincolnshire LRF update**

Boston Barrier LRF Site Visit: In partnership with Lincolnshire County Council Emergency Planning team, we facilitated a site visit to the Boston barrier during one of the monthly test closures for a group of 10 LRF partners. Attendees included representatives from Boston Borough Council, East Lindsey District Council, South Holland District Council, and one of our military liaison officers, who were interested in learning more about how the barrier works to protect Boston from flooding.



*Photo 1: Site visit to the Boston Barrier for LRF partners*

The visit included a site walkover, observation of barrier closure, and a control building tour. Experts were on hand to give an overview of the scheme, explaining the barrier operational procedures, redundancies, and contingency plans. This was followed by a discussion around Coastal risk planning and multi-Agency flood plans. The attendees found the trip extremely useful and thanked us for organising it.



*Photo 2: Lincolnshire Coast Senior Officer Tour*

On Thursday 8 September we co-hosted a trip to the East Coast with the Lincolnshire County Council Emergency Planning team for Senior Officers of some key LRF organisations including Lincs Police, Fire & Rescue Service (both Lincolnshire and Northamptonshire) and a local Councillor.

The aim was to increase understanding of the risk that East Coast Inundation poses to Lincolnshire, and what the strategic considerations and challenges are when planning, preparing, and responding to this risk. We visited a number of key sites along the coast,

including Skegness, the caravan parks at Ingoldmells and Sutton-on-Sea.

The visit was well received by all attendees as it highlighted the significant multi agency challenges the LRF partners will face.

### 2.3 Preparation

**Tidal Training Focus 2022:** In the build-up to Flood Ex 2022 we are taking the opportunity to improve our tidal flood resilience by running a range of tidal focussed training sessions.. The 8 sessions below have been run for those participating, each based on a different element of our response to tidal flooding.

Session Title	What's covered
Tidal risk in LNA: Introducing the basics	<ul style="list-style-type: none"> <li>• Introduction to Tidal risk in LNA</li> <li>• Key historic incidents</li> <li>• Primary and secondary impacts</li> <li>• The difference between overtopping and breaches</li> <li>• Unique challenges of tidal flooding</li> </ul>
Tidal Warning and Informing	<ul style="list-style-type: none"> <li>• LNA's tidal Flood Warning Service</li> <li>• New Emergency Alerts technology</li> <li>• Multi-Agency Comms</li> <li>• Warning &amp; Informing key messages</li> <li>•</li> </ul>
Tidal Flood Forecasting and Timeline of Key Decisions	<ul style="list-style-type: none"> <li>• What causes tidal flooding</li> <li>• How we forecast tidal flooding</li> <li>• Confidence and uncertainty</li> <li>• Timeline of key actions</li> <li>• Case study: Jan 2017 tidal surge</li> </ul>
Resourcing and ConOps	<ul style="list-style-type: none"> <li>• Timeline of escalation</li> <li>• ConOps structure and shift patterns</li> <li>• HS&amp;W considerations</li> <li>• Mutual Aid</li> </ul> <p>Recovery phase</p>

LRFs & Multi-Agency Response	<ul style="list-style-type: none"> <li>• LRF Timeline of decisions</li> <li>• Spotlight on each LRF covering:               <ul style="list-style-type: none"> <li>○ What's at risk</li> <li>○ Cross-boundary comms</li> <li>○ LRF incident structure</li> <li>○ LRF key strategies &amp; plans</li> </ul> </li> <li>• Military Aid</li> </ul>
Mapping & Data	<ul style="list-style-type: none"> <li>• The importance of LNA tidal maps in incidents</li> <li>• Sharing data with partners</li> <li>• Data collection</li> <li>• Aerial photography</li> </ul>
Environmental impacts	<ul style="list-style-type: none"> <li>• Pollution impacts resulting from tidal flooding</li> <li>• COMAH sites at risk</li> </ul>
Tidal Procedures and Tactical options	<ul style="list-style-type: none"> <li>• Overview of newly revised tidal procedures</li> <li>• Tidal tactical options</li> <li>• Data Collection</li> </ul>

Figure 1: The range of tidal focused training sessions

### 2.4 Incidents and Emergency Response

**Short Ferry 15072022:** Increased water demand throughout the Witham and Ancholme catchments resulted in an elevated requirement for water transfer via pumping operations at Short Ferry. This high level of pumping reduced river levels which combined with the amount of weed in the system blocked the weed screen creating a temporary cessation to our ability to pump. We worked closely with partners, including Anglian Water (AWS), as this temporarily impacted their ability to abstract water for potable water supplies. A weed screen repair was carried out and the high voltage power supply restored.

**Kettering, Spalding and Market Rasen Surface Water Flooding:** We are aware of several surface water flooding incidents during August. These occurred as a result of intense rainfall after a prolonged period of dry weather. We expect to see further incidents like this as the dry conditions lead to rapid runoff when there is intense rainfall as the ground does not absorb the rainfall.

During these incidents, the local main rivers had plenty of capacity to accept the surface water had it been able to reach the rivers – typically the drainage networks running to main river are overwhelmed i.e., the water simply can't get into main river before there is surface water flooding and property flooding.

We continue to support the Lead Local Flood Authorities, who lead of surface water flooding matters, with any follow-on work that they need to undertake e.g., Section 19 Flood Investigations.

We have also responded to correspondence about these incidents with those communities affected and with Members of Parliament.

**Look North Drone Use:** On August 11th BBC Look North was out with Niamh Connolly from Land and Water and EM drone pilots, Kim Mynard and Michael Fallon, as they used the drone to identify active abstractors for the first time. Interviews with Yvonne Daly and Jo Gass took place and were shared in a number of broadcasts.

As we are in Drought status it is vitally important, we make sure all abstractions are permitted are operating within their permit conditions. We used the drone to help identify active abstractions, which we can then check against permits. Any illegal abstractors can then be identified, and appropriate enforcement action taken.

The drone can see 2km in each direction and zoom right in, so it makes it much more efficient than only using staff out on the ground. There is also huge potential in using thermal imaging to quickly identify where water is or has been used.

This is a great example of joint working and making the most of our resources and new technology available.



*Photo 6: Look North and drone use*

### **3. Conclusion**

This report seeks to update Flood and Water Management Scrutiny Committee on Environment Agency activities in Lincolnshire, including progress on key capital schemes.

The Flood and Water Management Scrutiny Committee is invited to review and comment on the contents of this written update and share feedback on projects and key capital schemes with Environment Agency.

### **4. Consultation**

#### **a) Risks and Impact Analysis:**

N/A

### **5. Background Papers**

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

This report was written by Morgan Wray, Area Flood and Coastal Risk Manager, Environment Agency who can be contacted on [morgan.wray@environment-agency.gov.uk](mailto:morgan.wray@environment-agency.gov.uk) or 020302 53344.



**Open Report on behalf of Andrew Crookham, Executive Director - Resources**

Report to:	<b>Flood and Water Management Scrutiny Committee</b>
Date:	<b>21 November 2022</b>
Subject:	<b>Flood and Water Management Scrutiny Committee Work Programme</b>

**Summary:**

This item enables the Committee to consider and comment on the content of its work programme to ensure that scrutiny activity is focused where it can be of greatest benefit. Members are encouraged to highlight items that could be included for consideration in the work programme.

The work programme will be reviewed at each meeting of the Committee to ensure that its contents are still relevant and will add value to the work of the Council and its partners.

**Actions Required:**

The Flood and Water Management Scrutiny Committee is invited to: -

- (1) review, consider and comment on the work programme; and,
- (2) highlight for discussion any additional scrutiny activity which could be included for consideration in the work programme; and note the terms of reference of the Flood and Water Management Scrutiny Committee, as agreed by the County Council.

**1. Background**

Overview and Scrutiny should be positive, constructive, independent, fair, and open. The scrutiny process should be challenging, as its aim is to identify areas for improvement. Scrutiny activity should be targeted, focused and timely and include issues of corporate and local importance, where scrutiny activity can influence and add value.

Overview and scrutiny committees should not, as a rule, involve themselves in relatively minor matters or individual cases, particularly where there are other processes, which can handle these issues more effectively.

All members of overview and scrutiny committees are encouraged to bring forward important items of community interest to the committee whilst recognising that not all items will be taken up depending on available resource.

## 2. Work Programme

<b>21 NOVEMBER 2022</b>	
<b>Item</b>	<b>Contributor</b>
<b>1. Floods Team Update (inc. S19 Investigations)</b>	Matthew Harrison, Flood Risk Manager
<b>2. Environment Agency Update</b>	Morgan Wray, Area Flood and Coastal Risk Manager, Environment Agency
<b>3. Anglian Water Update</b>	Jonathan Glerum, Anglian Water

<b>20 FEBRUARY 2023</b>	
<b>Item</b>	<b>Contributor</b>
<b>4. Floods Team Update (inc. S19 Investigations)</b>	Matthew Harrison, Flood Risk Manager
<b>5. Environment Agency Update</b>	Morgan Wray, Area Flood and Coastal Risk Manager, Environment Agency
<b>6. Anglian Water Update</b>	Jonathan Glerum, Anglian Water

<b>15 MAY 2023</b>	
<b>Item</b>	<b>Contributor</b>
<b>7. Floods Team Update (inc. S19 Investigations)</b>	Matthew Harrison, Flood Risk Manager
<b>8. Environment Agency Update</b>	Morgan Wray, Area Flood and Coastal Risk Manager, Environment Agency
<b>9. Anglian Water Update</b>	Jonathan Glerum, Anglian Water

<b>18 SEPTEMBER 2023</b>	
<b>Item</b>	<b>Contributor</b>
<b>10. Floods Team Update (inc. S19 Investigations)</b>	Matthew Harrison, Flood Risk Manager
<b>11. Environment Agency Update</b>	Morgan Wray, Area Flood and Coastal Risk Manager, Environment Agency
<b>12. Anglian Water Update</b>	Jonathan Glerum, Anglian Water

### **3. Items to be Considered/Programmed**

- Natural Flood Management
- South Lincolnshire Water Partnership (SLWP) & Water Resources East - Progress Update (TBC/Feb 2023)
- Coastal Adaptation Strategy
- Lincolnshire Reservoirs- Update
- Sewer Systems that Empty into Rivers - Update

### **4. Conclusion**

Members of the Committee are invited to review, consider and comment on the work programme and highlight for discussion any additional scrutiny activity which could be included for consideration in the work programme.

Consideration should be given to the items included in the work programme as well as any 'items to be programmed' that may be listed.

### **5. Consultation**

#### **a) Risks and Impact Analysis**

Not Applicable

### **6. Background Papers**

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

This report was written by Kiara Chatziioannou, Scrutiny Officer, who can be contacted on 07500 571868 or by e-mail at [kiara.chatziioannou@lincolnshire.gov.uk](mailto:kiara.chatziioannou@lincolnshire.gov.uk).

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