



County Offices
Newland
Lincoln
LN1 1YL

16 February 2018

Flood and Water Management Scrutiny Committee

A meeting of the Flood and Water Management Scrutiny Committee will be held on **Monday, 26 February 2018 at 10.00 am in Committee Room One, County Offices, Newland, Lincoln LN1 1YL** for the transaction of the business set out on the attached Agenda.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Tony McArdle', written over a horizontal line.

Tony McArdle
Chief Executive

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

Councillors D McNally (Chairman), P A Skinner (Vice-Chairman), W J Aron, T R Ashton, Mrs A M Austin, Mrs W Bowkett, B M Dobson, Mrs C J Lawton, C R Oxby, C E Reid and R A Renshaw

Other Voting Members

District Councillors R Austin (Boston Borough Council), Mrs F M Martin MBE (East Lindsey District Council), P Vaughan (City of Lincoln Council), I Carrington (North Kesteven District Council), M D Seymour (South Holland District Council), B Russell (South Kesteven District Council) and I G Fleetwood (West Lindsey District Council)

**FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE AGENDA
MONDAY, 26 FEBRUARY 2018**

Item	Title	Pages
1	Apologies for Absence/Replacement Members	
2	Declarations of Members' Interests	
3	Minutes of the meeting of the Flood and Water Management Scrutiny Committee held on 23 October 2017	5 - 12
4	Announcements by the Chairman, Executive Councillor for Economy and Place and the County Commissioner for Economy and Place	Verbal Report
5	Anglian Water Draft Water Resources Management Plan <i>(To receive a presentation from David Hickman (Growth and Environment Commissioner) which invites the Committee to consider Anglian Water's Draft Water Resources Management Plan consultation and provide an opportunity for direct member input)</i>	
6	Environment Agency Update <i>(To receive an update from John Ray (Environment Agency) which provides an update to the Committee on the activities of the Environment Agency, and includes progress on key capital schemes)</i>	13 - 20
7	Saltfleet to Gibraltar Point Strategy Review Consultation <i>(To receive a report from David Hickman (Growth and Environment Commissioner) which details the consultation input into the review of the management of coastal flood risk on the Lincolnshire coast between Saltfleet and Gibraltar Point)</i>	To Follow
8	Lincolnshire Partnership Response to Localised Flooding <i>(To receive a presentation from Paul Brookes (Flood Risk Manager) and John Cook (Assistant Chief Fire Officer, Lincolnshire Fire and Rescue) which provides information on the emergency response arrangements for localised flooding)</i>	21 - 34
9	To report progress on the investigations made in the County under Section 19 of the Flood & Water Management Act 2010 (FWMA) <i>(To receive a report from Paul Brookes (County Flood Risk Manager) which provides the latest position of all current investigations in the County under Section 19 of the Flood and Water Management Act 2010)</i> <i>(Members are asked to view the current Section 19 spreadsheets online (also contained in Appendix A) and inform Democratic Services in advance if they wish to highlight any particular sites at the forthcoming Scrutiny Committee meeting)</i>	35 - 48

10 Flood and Water Management Scrutiny Committee Work Programme

49 - 56

(To receive a report from Daniel Steel (Scrutiny Officer) which presents the Terms of Reference of the Flood and Water Management Scrutiny Committee and invites the Committee to consider its Work Programme for the coming year)

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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.

All papers for council meetings are available on:
www.lincolnshire.gov.uk/committeerecords



**FLOOD AND WATER MANAGEMENT
SCRUTINY COMMITTEE
23 OCTOBER 2017**

PRESENT: COUNCILLOR D MCNALLY (CHAIRMAN)

Councillors P A Skinner (Vice-Chairman), W J Aron, T R Ashton, Mrs A M Austin, Mrs W Bowkett, B M Dobson, Mrs C J Lawton, C R Oxby, C E Reid and R A Renshaw

Councillors: C J Davie attended the meeting as an observer

Officers in attendance:-

Paul Brookes (County Flood Risk Manager), David Hickman (Growth & Environment Commissioner), Andrew Jee, John Ray (Senior Advisor Flood and Coastal Risk Management, Environment Agency), Daniel Steel (Scrutiny Officer) and Rachel Wilson (Democratic Services Officer)

8 APOLOGIES FOR ABSENCE/REPLACEMENT MEMBERS

Apologies for absence were received from Councillor P Vaughan (City of Lincoln Council).

9 DECLARATIONS OF MEMBERS' INTERESTS

There were no declarations of Members' interests made at this point of the proceedings.

10 MINUTES OF THE MEETING OF THE FLOOD AND WATER
MANAGEMENT SCRUTINY COMMITTEE HELD ON 17 JULY 2017

During consideration of the minutes, reference was made to minute number 5, and the paragraph relating to the role Internal Drainage Boards, and it was commented that the wording was more negative than the tone of the debate which took place, and that the Internal Drainage Boards managed water very well in terms of drought and providing water for irrigation for farmers, and it was this that meant Lincolnshire was well-placed to explore new ways of managing water in the future.

It was also requested that the suggestion to visit an Internal Drainage Board be taken on board and added to the Work Programme.

**FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE
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RESOLVED

That the minutes of the Flood and Drainage Management Scrutiny Committee, held on 17 July 2017, be agreed and signed by the Chairman as a correct record, subject to the above being noted.

11 ANNOUNCEMENTS BY THE CHAIRMAN, EXECUTIVE COUNCILLOR FOR ECONOMY AND PLACE AND THE COUNTY COMMISSIONER FOR ECONOMY AND PLACE

The Executive Councillor for Economy and Place reported that the North Sea Observatory at Chapel Point was progressing well, and it was suggested that the Committee may want to have a visit there in the future.

He also reported that he had recently returned from a visit to Hunan Province in China, and there could be many opportunities which may have some relevance to this committee in future.

The Growth and Environment Commissioner advised that the Regional Flood and Coastal Committee had met the previous week and had agreed the local levy funding proposals which had been requested by LCC.

It was also reported that the Environment Agency, nationally, was looking at carrying out a review of Shoreline Management Plans, and it was noted that there were two which covered the Lincolnshire coast. They were agreed between the Environment Agency and Lincolnshire County Council and other partners in 2010-2011. It was noted that these Plans were part of Lincolnshire County Council's Policy Framework. The local implementation of the Plans was being taken forward through projects such as the Saltfleet to Gibraltar Point scheme. Any substantive changes to the Plans would need to be approved by the full Council.

The Growth and Environment Commissioner also advised that he had been informed by Anglian Water that an all-party parliamentary group of MP's was conducting a review into water availability and its use as a resource in relation to housing provision. The Council had been asked by Anglian Water to provide comments to feed into the Review.

12 ENVIRONMENT AGENCY UPDATE

The Committee received an update from John Ray from the Environment Agency on Environment Agency activities including progress on key capital schemes. It was noted that programme of works for Lincolnshire was stable, whereas others around the country had seen some movement.

In guiding members through the report, work on the Boston Barrier was highlighted as the biggest capital scheme underway for the Environment Agency in Lincolnshire.

It was also noted, that another key scheme, the Louth and Horncastle flood alleviation scheme was now completed, and ready if required.

It was also noted that the Environment Agency had now moved into new premises in Lincoln at Ceres House, with an improved incident room and were ready for winter.

Members were provided with the opportunities to ask questions to the officers present in relation to the information contained within the report and some of the points raised during discussion included the following:

- It was queried whether the new incident room would be linked to the wider emergency services. Members were advised that this would be for Environment Agency staff responding to local incidents. If there was a significant event requiring gold command, then the relevant staff would be located in the emergency planning bunker.
- The bank raising work for the Boston Barrier would be finished before the barrier was completed.
- The Horncastle scheme had not yet been signed off on the land registry.

RESOLVED

That the update provided be noted.

13 REVIEW OF THE LINCOLNSHIRE FLOOD RISK AND WATER MANAGEMENT PARTNERSHIP

The Committee received a presentation from the Growth and Environment Commissioner which provided an update on the work of the Flood Risk and Water Management Partnership. Further information was provided in relation to the following:

- Lincolnshire has a unique Joint Scrutiny Committee reflecting the Flood Risk and Water Management Partnership
- Joint Flood Risk and Drainage Management Strategy
- The need for a review of partnership arrangements
- Key questions

Members were provided with the opportunity to ask questions to the officers present in relation to the information contained within the presentation, and some of the points raised during discussion included the following:

- It was confirmed that if there was a performance measure that the committee was not happy with, this would be reported back to the partnership through the existing governance channels.
- It was commented that it was an interesting concept to consider scrutinising the management of water which would pose a threat and also seeing it as an opportunity for economic growth. It was suggested that this could be done through the consideration of exemplary case studies to illustrate where this has worked in other areas.
- Members were interested to know how this would fit in with the water Resources East programme and the interconnectivity of water courses in the

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south of the county. It was noted that this was one of the key areas that had developed since the Partnership had been set up.

- Economic growth and water management should be considered together in order to develop long term protection measures that would be necessary for the coast.
- It was commented that there was a need to look at the positive aspects of water management.
- Members were advised that there was now a much greater focus nationally on flood risk and water management as part of the government's broader agenda.
- It was commented that this committee had been very involved in the Louth and Horncastle scheme and it was suggested whether there should be a piece of work done on how the Partnership had worked and what lessons could be learnt. It was thought that there was a need to look at how the models which had been put in place could be used, as Lincolnshire was seen as being at the forefront of partnership working.
- It was noted that the Internal Drainage Boards were running a pilot scheme, the Partnership Approach to Catchment Management (PACM), focusing on developing successful multi-agency working at a local level, involving the involvement of landowners and farmers. It was agreed that the Committee would receive an update on this at a future meeting.
- It was noted that partnership working was important and there was a need to see Lincolnshire as part of a bigger picture and the more that Lincolnshire could engage with neighbouring areas, and then the county would be more able to have a major role in the national picture.
- Members were advised that it was recognised that water did not abide by boundaries and the impact water could have on Lincolnshire if it fell in Nottinghamshire, for example, needed to be considered. There was a need to work holistically.

RESOLVED

That the presentation and comments made be noted.

14 WATER RESOURCES EAST UPDATE

Consideration was given to a report which updated members on activities relating to Anglian Water's Water Resources East (WRE) and the opportunities which might emerge from it in relation to the GLLEP Water Management Plan and LCC's Waterways Development Strategy. It was reported that officers were supporting Anglian Water to develop the proposal and to ensure that Lincolnshire was correctly positioned to benefit from the opportunities which may emerge from it. It was noted that this project could bring significant investment into the county.

Members were provided with the opportunity to ask questions to the officers present in relation to the information contained within the report and some of the points raised during discussion included the following:

- It was commented that it was interesting to hear that a potential reservoir (or group of linked reservoirs) proposal – if this proved to be the solution

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ultimately selected to progress WRE - could be on a scale equivalent to Grafham Water, and it was queried whether the effect on planning was a concern. Members were advised that Anglian Water and the authority were working in consultation with landowners, and there was also a representative of the NFU on the project board.

- A major infrastructure project may not go through local planning processes as it could be a regionally or nationally important project.
- It was queried whether any reservoir would use good agricultural land, and it was confirmed that this would be an important factor in site selection.
- It was noted that a balance would be needed in relation to the use of agricultural land for any reservoir, as there was a need to consider how this land would be maintained if there was not enough water available for the crops. There was also a balance required in relation to land use for housing growth as well.
- It was clarified that the underlying strata required for a reservoir needed to be clay, and this was not the underlying strata for grade 1 agricultural land.
- All options would be looked at in relation to water management due to increasing uncertainty with climate change and both the frequency and quantity of rainfall.
- Members commented that they were pleased that the idea of a reservoir was being looked at seriously and queried whether due to the geography it would be an embanked reservoir. It was also queried whether there were other reservoirs of this scale which were completely embanked. It was suggested that fenland topography could require the use of embankments.
- It was highlighted that Boston Borough were going through the examination process for its local plan and it was queried how this sort of proposal could affect it as there was no indication of timescale. However, it was agreed that it was an exciting concept. The document would set out the local plan until 2036, so any large scale infrastructure proposal could have an impact on overall land use as set out in the Local Plan.
- Members were advised that this would be considered in a different way to local planning issues, but officers were not yet certain of the process by which it would be addressed. All agencies which would be involved had their own powers to permit development. In terms of timescales, it was reported that even if there was a public inquiry it was expected that an outcome would be decided by 2019 and the earliest construction could start in 2025. However, a lot of the added value needed to be brought in ahead of this date.
- It was noted that local plans should be kept under review, and the South Lincolnshire Local Plan would be reviewed every 5 years so it should pick up on any relevant initiative in the future.
- It was noted that partnership working through the Waterways Development Strategy was mature and effective and had been successful in delivering £26m of projects to date.
- It was noted that Anglian Water would need to move water in the same channels as boats would move, and so there were a lot of synergies.
- The Executive Councillor commented that he had always been a supporter of waterways work and now there would be opportunities for growth of the economic and tourism agenda and this proposal should be looked at as an

enabler for private sector development. There would be a need to be prepared to bid for funding at short notice.

- It was noted that the Council was working very closely with the National Infrastructure Commission (NIC) to ensure that focus remained on water management structures for economic growth purposes. It was commented that if the government could be influenced to start thinking in terms of the potential benefits to the east of England, Lincolnshire may stand a better chance of opening up wider investment channels.
- It was queried whether similar projects had been carried out in Europe or beyond. Members were advised that some of these things had been done elsewhere, but there was a uniqueness to each individual area.
- It was queried whether using the waterways for goods and services had been considered, and it was reported that it had, but was not considered feasible due to the amount of goods which would need to be carried. However, it was noted that there was always a mindset which would look for opportunities.

RESOLVED

That the report be noted and that officers be tasked to continue to work with Anglian Water and other stakeholders to ensure that LCC was positioned to attract the investment that WRE could bring to the County and to exploit the wider opportunities that this would create.

15 INVESTIGATIONS MADE IN THE COUNTY UNDER SECTION 19 OF THE FLOOD & WATER MANAGEMENT ACT 2010 (FWMA)

Consideration was given to a report which provided the Committee with a position statement on all current Section 19 investigations within the County.

The Committee was advised that in Quarter 2 (July - September 2017) two new Section 19 investigations had been commenced. The same period in 2016 returned three flooding events requiring investigation, although this was in contrast to 2015 when 15 investigations were initiated. It was reported that this reflected the random nature of flooding events, particularly the intense summer storms which could lead to surface water flooding, and a relatively dry period of weather.

It was also noted that according to the Environment Agency, the last two months had been wetter than normal, but the region had not experienced the intense rainstorms that it normally would.

Members considered the spreadsheets which showed the current Section 19 flood investigations within the County, and some of the incidents highlighted by the Committee included the following:

- 28 June 2012 – Horncastle – South Street, Bull Ring – it was reported that flooding incidents were still occurring, and that this had been ongoing for five years now and it was queried when this would be resolved. Officers advised that this would be followed up outside of the meeting.

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- It was noted that parked vehicles seemed to be an issue for blocking gullies and preventing them from being cleaned which could lead to an increased risk of surface water flooding. It was queried whether households could be informed when gullies on their street were to be cleaned and be asked to make sure their vehicles were not blocking the gullies.
- It was suggested whether a report clarifying the gulley cleaning regime should be brought to a future meeting and it was agreed that this would be useful.
- 28 June 2012 – New Bolingbrooke – it was queried when the works would be completed.
- It was requested that Councillor A Austin be kept informed of progress of investigations taking place in Boston.
- It was also requested that Councillor Mrs C Lawton be kept informed of the ongoing reports in Spalding.
- It was clarified that if members had any queries regarding any of the investigations, they should contact Paul Brookes, the Flood Risk Manager, in the first instance.

RESOLVED

That the progress made on investigations undertaken within the County under Section 19 of the Flood and Water Management Act 2010 be noted.

16 FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE WORK PROGRAMME

The Committee received a report which enabled members to consider and comment on the content of its work programme for the coming year to ensure that scrutiny activity was focussed on areas of greatest benefit.

Members were advised that the next meeting was scheduled to take place on 26 February 2018.

RESOLVED

That the Flood and Water Management Scrutiny Committee Work Programme, as presented, be agreed

The meeting closed at 11.30 am

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Open Report on behalf of Environment Agency

Report to:	Flood and Water Management Scrutiny Committee
Date:	26 February 2018
Subject:	Environment Agency Update

Summary:

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

Actions Required:

Members of the Flood and Water Management Scrutiny Committee are invited to consider and comment on the update provided and highlight any future actions for consideration.

1. Key Capital Schemes

This paper provides an update on the key schemes within the current 2015-21 consented programme for the Northern Regional Flood & Coastal Committee (RFCC) area. The overall programme consists of 107 schemes with the key ones being the **34** highest priority schemes based on the following criteria:

- **Outcome measures** – Schemes delivering > 200 households
- **Significant expenditure** – Schemes with consented total spend > £1m
- **Contributions** – Schemes with public, private and further contributions required collectively > £300k
- **Other** projects deemed important in the Area including for reasons associated with reputational risk

Of the 34 key schemes **16** are located within Lincolnshire:

<u>Scheme Name</u>	<u>Promoter</u>
• Boston Barrier	Environment Agency
• Boston Haven Banks	Environment Agency
• Saltfleet to Gibraltar Point Strategy	Environment Agency
• Lincshore	Environment Agency
• Horncastle Flood Alleviation Scheme	Environment Agency
• Louth Flood Alleviation Scheme	Environment Agency
• Wainfleet Relief Channel	Environment Agency

- Black Sluice Catchment Works Environment Agency
- Work arising from Upper Witham Strategy Review (Lincoln Defences) Environment Agency
- Swaton Flood Resilience Scheme Environment Agency
- Welland Flood Banks Refurbishment Environment Agency
- Saltfleet Pumping Station Lindsey Marsh IDB
- Boygrift Pumping Station Lindsey Marsh IDB
- Wrangle Sea Banks Witham Fourth IDB
- Hobhole Pumping Station Witham Fourth IDB
- Westmere Pumping Station South Holland IDB

Of the 107 schemes in the Northern RFCC programme 17 are being promoted by Lincolnshire County Council.

This paper provides a short summary of the **11** Environment Agency key schemes on the Northern RFCC programme with Lincolnshire. More comprehensive report being provided to the Lincolnshire Flood Risk & Drainage Partnership Strategy Group and the Northern RFCC, both of which have representatives from the County Council.

1.1 Boston Barrier

A tidal barrier across the Witham Haven which, in conjunction with associated works to the Haven Banks, reduce the chance of tidal flooding to the centre of Boston to a 1 in 300 annual chance over the next 100 years.

The Barrier scheme remains on programme:

Start date:	May 2014
End date:	December 2019
Total Project Cost:	£90,339,950

Update since last meeting

The project has now received Her Majesty's Treasury Full Business Case (HMT FBC) approval, with funding being fully secured for the scheme through Flood Defence Grant in Aid funding (FDGiA).

The Transport & Works Act Order (TWAO) has now been secured through the Secretary of State following on from the Public Inquiry at the beginning of 2017.

The Design and Build phase of the works have been successfully tendered through the Environment Agencies Water and Environment Management Framework (WEM) Lot 4 procurement contract, with the contract awarded to Bam Nuttall and Mott MacDonald.

A Marine Management Organisation (MMO) licence has been applied for outside of the TWAO order following Defra requirements.

Following a ground breaking ceremony on 22 January 2018 work on the barrier has now commenced.

1.2 Boston Haven Banks

Works to raise a number of low spots along the Haven banks which, in conjunction with the barrier, reduce the chance of tidal flooding to the centre of Boston to a 1 in 300 annual chance. This phase of works is the first in a series of bank raising phases to keep pace with climate change over the next 100 years.

Start Date:	October 2016
End Date:	December 2019
Total Project Cost:	£2,000,000

Update since last meeting

The Outline Business Case (OBC) design cost for delivering crest heights to a minimum of 6.50m above ordnance datum (AOD) has increased and requires additional FCRM Grant in Aid. The OBC funding calculator is being amended in conjunction with the Boston Barrier team to ensure we avoid double counting of benefits.

The overall programme still is for completing the scheme by December 2019

1.3 Saltfleet to Gibraltar Point Strategy Review (SGPSR)

Beach nourishment remains the most cost effective solution in the short-term as we keep pace with climate change. However, this option alone will not be technically viable in the longer term. The SGPSR will indicate when an alternative approach for significant capital investment is required and the need for partnership contributions is likely.

Start Date:	February 2018
End Date:	April 2021
Total Project Cost:	£1,210,866

Update since last meeting

Following extensive consultation with key stakeholders between November 2016 and September 2017, which included Local Authorities, Internal Drainage Board, Town and Parish Councils, businesses and environmental groups, we have been able to reduce the long list of options down to a shorter list of six options, as follows:

- Beach without control structures – annual nourishment with present beach material and standard
- Beach without control structures – annual nourishment with alternative beach material and standard
- Beach with rock groyne control structures – annual nourishment and standard
- Beach with rock groyne and fishtail control structures – annual nourishment and standard
- Beach with rock groyne and fishtail control structures – annual nourishment with volumes to a higher or lower standard

- Beach with rock groynes and fishtail control structures – frequency of nourishment to a higher or lower standard

Further formal consultation is ongoing during February and March 2018 to reach our preferred option(s). The consultation period will run for six weeks and we are holding a series of drop-in events along the coast at Saltfleet, Mablethorpe, Anderby, Chapel St Leonards, Skegness and Gibraltar Point.

These results will then feed in to the final Saltfleet to Gibraltar Point Strategy, (SGPS) alongside the Strategic Environmental Assessment which we will formerly consult on later in the year. We will be submitting the SGPS for approval in 2019, with delivery of works commencing April 2021 onwards.

In conjunction with the Saltfleet to Gibraltar Point coastal strategy consultation, we are using the opportunity to seek views on what else communities may want to see, called ‘additionality’, along the Lincolnshire coast which can support tourism and growth.

These opportunities may require additional funding, and the SGPS could provide support to assist others develop a project where there is mutual benefit in managing coastal flood risk.

The Environment Agency have developed a Saltfleet to Gibraltar Point web page to keep people up to date with the latest information, where venue dates and times for the consultation drop-ins can be viewed. This web page will also be used to facilitate links to allow e-consultation on the strategy options and can be accessed by following the link:

<https://consult.environment-agency.gov.uk/flood-and-coastal-risk-management/sgp/>

1.4 Lincshore (Interim Beach Management Lincolnshire Coast)

Beach 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.

Start Date	January 2015
End Date:	March 2021
Total Project Cost:	£65,792,126 (inc. previous years)

Update since last meeting

The contract to supply consultancy support to the project has been awarded to CH2M.

The contract for the Lincolnshire Beach Management Interim Works (formerly Lincshore) contract has been awarded to Team Van Ord for annual nourishment through to 2020.

1.5 Horncastle Improvements

A flood storage reservoir on the River Bain built with the help of £8.2million of contributions from a range of partners. Also individual property protection for 15 properties along the River Waring.

Start Date:	July 2014
End Date:	July 2017
Total Project Cost:	£7,253,000

Update since last meeting

The works are now complete, the reservoir operational and an official opening ceremony held on 28th July 2017.

Settlement of the final account is delayed due to disputed claims. The contractor has notified the Environment Agency of their intention to await the outcome of adjudication for the Louth sites before deciding on a course of action for Horncastle.

The land transfer documents have been completed and compensation has started to be paid to landowners who have agreed to flood easements. Other landowners will be compensation in a different manner.

1.6 Louth Improvements

Two flood storage reservoirs on the River Lud built with the help of £6.5million of contributions from a range of partners.

Start Date:	May 2014
End Date:	July 2017
Total Project Cost:	£5,118,100

Update since last meeting

The works are now complete, the reservoir operational and an official opening ceremony held on 28th July 2017.

Settlement of the final account is delayed due to disputed claims. The contractor has notified the Environment Agency of their intention to seek adjudication on the disputed costs. It is very unlikely this will be resolved this financial year.

The land transfer documents are awaiting agreement. Once completed flood easements paid to landowners who have agreed to flood easements. Other landowners will be compensation in a different manner.

1.7 Wainfleet Relief Channel

The main flood risk issue along the Wainfleet Relief Channel is the condition of the flood embankments, though justification of the required works is likely to be difficult using current funding rules. Therefore an alternative approach is required.

The Steeping Catchment will be the key pilot for a “Partnership Approach to Catchment Management” being promoted through the Lincolnshire Flood Risk Management Partnership, which will involve the development of a long term strategic approach to managing flood risk in the Steeping Catchment, working across a range of partners including Lincolnshire Flood Risk Management Partnership, landowners, and other key groups such as local councils and the National Farmers Union (NFU).

Start Date:	April 2017
End Date:	March 2022
Total Project Cost	£2,833,600

Update since last meeting

The Partnership Approach to Catchment Management (PACM) pilot has now established key objectives for the catchment and is working towards determining future options to achieve these.

This option scoping will consider the need for works on the Wainfleet Relief channel and what a Capital scheme will need to consider in order to best meet the Flood Risk Management requirements for Wainfleet and surrounding area.

A public drop in session around the ongoing Enhanced Maintenance has been held and confirmed positive support for the current approach to address flood risk and promote sustainable use of the River System in conjunction with our Partners such as Lindsey Marsh Drainage Board.

1.8 Black Sluice Catchment Works

A catchment wide review of flood risk across the Black Sluice catchment has concluded with the following key projects resulting:

- Transfer of Black Sluice Pumping Station to the local IDB
- Rationalisation of the Main River network
- Armouring to selected embankments to reduce the risk of catastrophic failure.

Start Date:	October 2016
End Date:	March 2020
Total Project Cost:	£2,163,650

Update since last meeting

➤ Black Sluice Pumping Station

The Environment Agency has been working closely with Black Sluice IDB to transfer the pumping station to them (NOT the sluice and navigation lock). This includes supporting the IDB on their proposals to refurbish the pump station through a £4m project fitting new electric pumps.

The IDB are currently trying to secure funding for this project, such as FCERM Local Levy.

The Environment Agency have agreed to continue to maintain (though not operate) the pumping station until June 2018 whilst the IDB do this. In the meantime and in parallel, we will begin the decommission process.

A meeting is being held in March 2018 with the local MP and representatives of Lincolnshire County Council, Boston Borough Council and the IDB to discuss the matter in detail.

The Environment Agency will continue to keep partners updated. Whilst the current situation with the BSPS is now in the public domain, a priority will be managing that message therefore any enquiries to Committee members should also be directed to the project lead Abigail Jackson (Environment Agency).

➤ **Rationalising the Main River Network (RMRN) Project**

Following the successful public drop-ins held in October a formal consultation has taken place, closing on 12 February 2018. We are currently reviewing comments.

If there are no objections, the ambition is to de-main and transfer in July 2018.

The Environment Agency and Black Sluice IDB are in discussion regarding around future maintenance requirements, asset transfer details and environmental mitigation measures.

➤ **Bank Armouring**

This financial year armouring and low spot repair is proposed for three assets on the fenland section of the Swaton Eau, and preparations are well advanced for this work to be completed in the near future.

Modelling is being reviewed to confirm to any further sites requiring armouring in the next two years.

1.9 Lincoln Defences (previously- Work arising from Upper Witham Strategy Review)

A catchment wide review of flood risk across the Upper Witham catchment has concluded with the following key projects resulting:

- Replacement of a section of floodwall along Fosdyke Canal, alongside Foss Bank.
- Refurbishment of sections of flood wall along the River Witham alongside St Catherines.
- Refurbishment of sections of flood wall along the River Witham between Dixon Street and Boultham Avenue.
- Mechanical & Electrical refurbishment to the three sluices in the city, at Stamp End, Great Gowts and Bartgate.

Start Date:	June 2017
End Date:	September 2021
Total Project Cost:	£6,048,000

Update since last meeting

Work to develop the business case is ongoing, with support from the new Programme Delivery Unit.

Following an initial assessment of costs and benefits, which highlighted a likely need for around £1.36million of additional partnership funding, the detailed business case is being worked on.

1.10 Swaton Resilience Scheme

A flood alleviation scheme for the village of Swaton. Traditional flood risk solutions are unlikely to be justifiable hence a Natural Flood Management solution is being considered, ideally reducing flood risk across the wider catchment including the villages of Threkingham and Spanby.

Start Date:	October 2016
End Date:	February 2022
Total Project Cost:	£1,237,000

Update since last meeting

The Strategic Outline Case for the Swaton Natural Flood Management (NFM) Project was approved in January 2018. Work on the Outline Business Case (OBC) has now commenced through the Project Delivery Unit.

The aim is to finalise and submit the OBC in spring 2018. Work to be completed before this date includes additional survey of the catchment and watercourses, additional modelling, installation of baseline monitoring, and extensive engagement with land owners, land managers and partners.

2. Consultation

a) Have Risks and Impact Analysis been carried out?

N/A

b) Risks and Impact Analysis

N/A

3. 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 on behalf of Deborah Campbell, who can be contacted via 03708 506 506 or deborah.campbell@environment-agency.gov.uk



Lead Local Flood Authority and Lincolnshire Fire & Rescue Service

Emergency response to Flooding

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Agenda Item 8

Responding to Flooding

- The County Council plans for major flood emergencies through the Emergency Planning & Business Continuity unit with the support of the Local Resilience Forum.
- For localised floods, a low-level response is required, co-ordinated by the LLFA.
- We do this in partnership with:
 - LCC Highways
 - Lincolnshire Fire & Rescue
 - Other partners - District Councils, water companies, IDBs, EA

Responding to Flooding

- Fire & Rescue is the County Council's emergency service.
- Increasingly called upon to protect lives, communities and property from dangers other than fire.
- Capable and willing to respond to flooding causing danger to life and property.

Responding to Flooding

- LLFA wants to support Fire & Rescue in the response to flooding emergencies.
- One way is to bolster the Service's capability by increasing the pumping capacity.
 - An additional resource to supplement High Volume Pumps, Light Portable Pumps and other appliances.
 - Releases appliances and crews to other duties.

Responding to Flooding

- Pumps and vehicles delivered to LFR in November 2017
- Super Betsy 150mm / 6" centrifugal pumps
- Capable of 317m³/hour or 88 litres/second
- Trailer mounted with all ancillary equipment
- Towed by Isuzu D-max utility vehicle
- Compatible with other RMA's equipment e.g. IDB.

Responding to Flooding

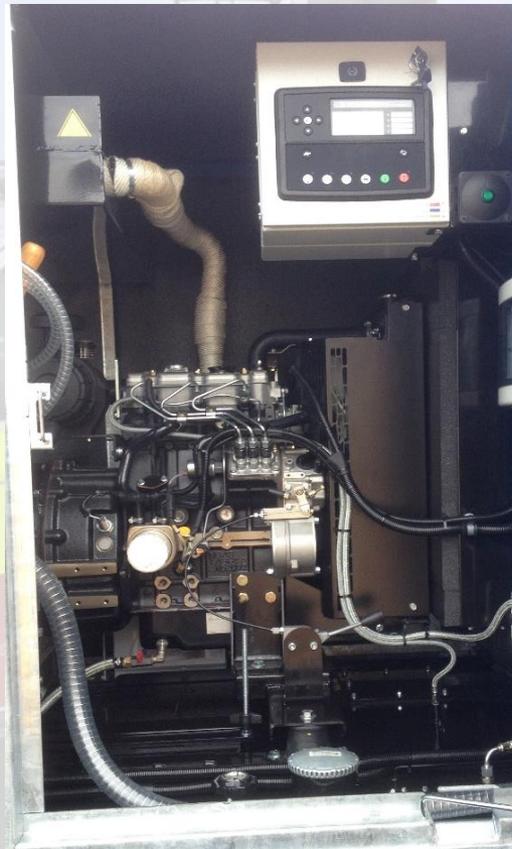


Responding to Flooding



THE PUMP SET

Responding to Flooding



THE PUMP SET

Responding to Flooding

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TESTING THE PUMPS

Responding to Flooding



TESTING THE PUMPS

Responding to Flooding



TESTING THE PUMPS



Some facts

- Fuel Consumption Approx. 3 litres/hr
- 500 Litre fuel tank lasts 6-7 days before refilling
- Can be left unattended
- Can connect to farm style irrigation pipework
- Can connect to high volume and standard fire hose
- Compatible with Environment Agency and IDB pumps



Thank you

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**Open Report on behalf of Richard Wills
Executive Director for Environment & Economy**

Report to:	Flood & Water Management Scrutiny
Date:	26 February 2018
Subject:	To report progress on the investigations made in the County under Section 19 of the Flood & Water Management Act 2010 (FWMA)

Summary:

This is a standing item to inform the Committee of the position of all on-going Section 19 flood investigations in the County.

Actions Required:

Members of the Flood and Water Management Scrutiny Committee are invited to consider and comment on the investigations undertaken in the County under Section 19 of the Flood and Water Management Act 2010 (FWMA).

Members are asked to view the current S.19 spreadsheets online (also included at Appendix A) and inform Democratic Services in advance if they wish to highlight any particular sites at the forthcoming Scrutiny Committee meeting.

Link - <https://www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/flood-investigations/117780.article>

1. Background

This is a standing item to inform the Committee on the position of all current Section 19 investigations in the County.

In Quarter 3 (October to December 2017), just one new Section 19 investigation was started, affecting a single commercial property in Spalding. In the same period last year no flood events were reported.

According to the Environment Agency, rainfall in December 2017 was above the long term average in the southern part of Lincolnshire, and below the long term average in the northern part of the county. The incident in Spalding occurred just after Christmas, when there was a period of persistent rain over a few days.

The inclusion of an investigation in Appendix A does not necessarily mean the investigation itself is incomplete. It will be noted that in some cases the investigation is marked as being completed, but the flood incident will remain on Appendix A as there may be outstanding works arising from the investigation which have not yet been completed by the relevant Risk Management Authority.

2. Conclusion

Members of the Flood and Water Management Scrutiny Committee are invited to review the investigations undertaken in the County under Section 19 of the Flood and Water Management Act 2010 (FWMA).

3. Consultation

a) Have Risks and Impact Analysis been carried out?

No

b) Risks and Impact Analysis

N/A

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Record of current flood investigations in the County carried out in accordance with S.19 FWMA.

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 Paul Brookes, County Flood Risk Manager, who can be contacted on (01522) 782070 or paul.brookes@lincolnshire.gov.uk.

Appendix A												
Duty to Investigate												
Section 19 Investigations												
Lincolnshire County Council Section 19 Investigations - East Lindsey District Council Network Area - Area Highways Manager Andrew Ratcliffe (East)												
Date of Incident	Town / Locality	Description of Flooding	No of Properties Flooded	Investigation Status	S19 Report Recommendations / Conclusions	Risk Management Authorities with Responsibilities and whether they are exercising functions	Proposed Action/Works	Consideration for inclusion in future Common Works Programme	Promoter	Works Status	Estimated Timescales Recommendation / Scheme Completion	S19 Report File Reference
28 June 2012	Horncastle South Street	Extreme rainfall (estimated to be a 1 in 50 year event) caused overland and highway surface water flows to collect at the low area of the Bull Ring and South Street overwhelming the Anglian Water sewer systems; which were also suffering from surcharged outfalls due to high river levels. 1 Property	1	Completed	Whilst the flooding was caused by extreme rainfall and overland flows, LCC has undertaken a CCTV survey of the underground surface water systems. This has revealed a number of condition concerns in relation to a brick culvert system owned by Anglian Water. The report has been passed to Anglian Water in order that they consider future action and repairs. LCC has in addition carried out repairs to gullies and connections in South Street. LCC has also undertaken initial modelling work to help understand and assess surface water flood risk in Horncastle. A bid for an overall surface water study for Horncastle is being submitted by LCC. Anglian Water works to clear blockages have been completed. Planned Environment Agency works regarding outfall issues and river levels may reduce flood risk.	Anglian Water - Yes LCC - Yes	LCC gullies and system checked and repaired. Anglian Water checking surface water systems and may consider improvement works in future asset management plans. Feasibility and design programmed for 2014/15 and if approved; works to progress in 2015/16/17. Additional minor works to be included in the future works programme.	Yes	LCC	On-going	2018/19	S19-003
28 June 2012	Horncastle Langton Hill	Extreme rainfall (estimated to be a 1 in 50 year event) caused significant overland flows from the adjacent hillside and agricultural land, which was not contained by the interceptor ditch. Combined overland and highway surface water overwhelmed both the highway and surface water sewer drainage systems on Langton Hill and West Street, and caused flooding at the bottom of the hill. 1 Property	1	Completed	A full drainage survey has been carried out and significant blockages have been removed from both the highway drains and Anglian Water's surface water sewers. The survey has identified a number of areas of damage to both systems. LCC has repaired the highway drainage system, and the survey has been forwarded to Anglian Water for assessment of their surface water sewers. The Witham 3rd Internal Drainage Board is ensuring that ditches are cleared by respective riparian land owners.	LCC - Yes Anglian Water - Yes Witham 3rd IDB - Yes	Highway drainage system repaired and functioning. Anglian Water checked the surface water system and it is working acceptably. Initial works delivered. A bid for an overall surface water study for Horncastle has been submitted with feasibility and design programmed for 2014/15 if approved; works to be programmed 2017/18.	Yes	LCC	On-going	2017/18	S19-004
28 June 2012	Horncastle Mark Avenue, Accommodation Road, Prospect Street	Extreme rainfall (estimated to be a 1 in 50 year event) caused significant overland flows from the adjacent hillside and agricultural land. This was exacerbated by the interceptor ditch being restricted at its entrance to the culvert system, which caused flooding to properties in Mark Avenue, Accommodation Road and Prospect Street. 14 Properties	14	Completed	Whilst the flooding was caused by extreme rainfall and flows from adjacent land, investigations revealed an intercepting ditch which flows into a culverted watercourse which is shown on Anglian Waters records. East Lindsey District Council has cleared the culvert and trash screen. LCC has also undertaken initial modelling work to help understand and assess surface water flood risk in Horncastle. Ditches cleaned out and discussions are ongoing between Anglian Water and Witham 3rd Internal Drainage Board regarding ownership. A bid for an overall surface water study for Horncastle is being submitted by LCC.	Anglian Water - Yes Witham 3rd IDB - Yes ELDC - Yes	Ditches cleaned out. Discussions ongoing between Anglian Water and Witham 3rd IDB regarding ownership. A capital scheme is included in the Medium Term Plan for works in 2018/19	Yes	LCC AW Witham 3rd IDB	On-going	2018/19	S19-005
28 June 2012	Toynton St Peter Ings Lane	Extreme rainfall caused overland flows to surcharge a number of watercourses in the area resulting in flooding to a low lying property in Ings Lane. 1 Property	1	Completed	It is recommended that a new watercourse be cut to the south to divert flows from Toynton St Peter away from the flooded property. Witham 4th Internal Drainage Board is considering a scheme. However, this is likely to be a low priority due to the cost, legal issues and minimal benefits.	Witham 4th IDB - Yes LCC - Yes	Witham 4th IDB considering a capital scheme submission with possible upgrading/realigning of drains in the area. Investigation works programmed for 2016/17/18. Possible works 2018/20.	Yes	Witham 4th IDB	On-going	Investigation 2016/17/18 Possible works 2018/19/20	S19-010
9 June 2014	Skegness North Parade	Intense summer rainfall caused internal flooding to the hotel. Surface water entered the building via the ladies toilets. 1 Property	1	Completed	AW to investigate the capacity of the surface water system. The property owners should investigate whether they have sufficient drainage within their land to accommodate the normal flows expected.	LCC - Yes Anglian Water - Yes	Further investigations to be carried out by AW and recommendations advised to property owners.	No	AW	On-going	Spring 2015	S19-101
24 June 2014	Skegness Sunningdale Close	Following torrential rain, the highway drains were unable to cope with the amount of surface water on the carriageway. The flood water entered the property. 2 Properties	2	Completed	AW to investigate the capacity of the surface water system. The property owners should consider installing cut off drains to collect water before it enters the property and ensure discharge to an appropriate location, or consider other property level protection measures.	LCC - Yes Anglian Water - Yes	Further investigations to be carried out by AW, IDB & EA to establish outfall.	No	AW IDB EA	On-going	Spring 2015	S19-098
24 June 2014	Skegness Sunningdale Drive	Following torrential rain, the highway drains were unable to cope with the amount of surface water on the carriageway. The flood water entered the property, whilst the owners were away on holiday. The property also flooded on 13 July 2014. 1 Property	1	Completed	Following investigations carried out by AW in 2012, third party obstructions were identified at several locations within the system. Three of these were resolved in 2013 and a further drainage survey was carried out. AW to carry out further investigations.	LCC - Yes	Further investigations to be carried out by AW, IDB & EA to establish outfall.	No	AW IDB EA	On-going	Spring 2015	S19-099
24 June 2014	Skegness Grand Parade	Following torrential rain, the highway drains were unable to cope with the amount of surface water on the carriageway and a property was flooded. 1 Commercial Property	1	Completed	AW to investigate the capacity of the surface water system. ELDC should consider investigating whether it has sufficient drainage within its land to accommodate the normal flows expected.	LCC - Yes	Further investigations to be carried out by AW & ELDC	No	AW ELDC	On-going	Spring 2015	S19-100
8 August 2014	Wainfleet All Saints Bethlem Crescent	Intense rainfall that fell over a short period of time caused internal flooding to one property. 2 Properties	2	Completed	AW should consider investigating the surface water drainage system within the local area to determine if there is sufficient capacity to drain the local area to 1 in 30 year standard	LCC - Yes Anglian Water - Yes	Further investigations to be carried out by AW	No	AW	On-going	Summer 2015	S19-118

Duty to Investigate												
Section 19 Investigations												
Lincolnshire County Council Section 19 Investigations - East Lindsey District Council Network Area - Area Highways Manager Andrew Ratcliffe (East)												
Date of Incident	Town / Locality	Description of Flooding	No of Properties Flooded	Investigation Status	S19 Report Recommendations / Conclusions	Risk Management Authorities with Responsibilities and whether they are exercising functions	Proposed Action/Works	Consideration for inclusion in future Common Works Programme	Promoter	Works Status	Estimated Timescales Recommendation / Scheme Completion	S19 Report File Reference
10 August 2014	Chapel St. Leonards South Road	Highway surface water entered the property through the vehicular access and flooded the driveway and then entered the living area of the dwelling. Property flooded again on 27/8/2016 - (REPORT AND WORKS STILL ON-GOING) 1 Property	1	Completed	Due to capacity issues the gully cleansing and jetting is unlikely to resolve the problem during extreme rainfall, as the quantity of surface water would overwhelm any standard drainage system. However this will hopefully ease the extent of flooding and be effective during heavy / average rainfall, together with the solutions installed by the residents. LCC Highways to arrange a CCTV drainage survey to identify any blockages or defects within the system. Assuming the drainage system is in good working order, the most likely solution to ease the problems of flooding will be to increase the upstand of the dropped kerb to +25mm and install an additional gully at the lowest point (determined by level survey), and connect to the existing surface water drainage system. This will be carried out as a small highways maintenance scheme.	LCC - Yes	CCTV drainage investigation to be carried out in due course. Along with the installation of an additional gully and increasing the upstand of the vehicular access to +25mm. Order in system programmed for 2018/19.	No	LCC	On-going	March 2019	S19-125
10 June 2016	Binbrook Orford Road	An issue of flooding where surface water run-off is travelling down the slope of the road at such a velocity that it is bypassing the drains/gullies and flooding internally. 1 Property	1	On-going	Awaiting report, expecting October 2017		Awaiting report, potential scheme being prepared. Expected July 2017.			On-going		S19-177
27 August 2016	Chapel St Leonards The Esplanade	LPP used to remove large amount of water. 2 Properties	2	On-going			TBC			On-going		S19-195
27 August 2016	Chapel St Leonards St Leonards Drive	Main pump used 1 Property	1	On-going			TBC			On-going		S19-196

Appendix A												
Duty to Investigate												
Section 19 Investigations												
Lincolnshire County Council Section 19 Investigations - West Lindsey District Council & City of Lincoln Council Network Area - Area Highways Manager Steve Wiles (North)												
Date of Incident	Town / Locality	Description of Flooding	No of Properties Flooded	Investigation Status	S19 Report Recommendations / Conclusions	Risk Management Authorities with Responsibilities and whether they are exercising functions	Proposed Action/Works	Consideration for inclusion in future Common Works Programme	Promoter	Works Status	Estimated Timescales Recommendation / Scheme Completion	S19 Report File Reference
28 June 2012	Keelby Maple Avenue, Pelham Crescent, Riby Road	Flooding was caused by surcharging surface water sewers combined with overland flows. 4 Properties Maple Avenue - 2 Properties Pelham Crescent - 1 Property Riby Road - 1 Property	4	Completed	Further detailed study required into the ownership, condition and capacity of the surface water sewer system with a view to providing a new pipe system to intercept flows from the A18 Barton Street; to reduce flows entering the village, and to upgrade the pipe between Riby Road and Caddle Beck. Further LCC investigation and design required. Scheme bid submitted for feasibility and works.	LCC - Yes Anglian Water - Yes	Surface water drainage scheme under consideration. Further LCC investigation and design required. Feasibility 2016/17 Work 2018/19. Some A18 cut-off remedial work has been identified to have some mitigation benefit.	Yes (may also require Anglian Water investment)	LCC AW	On-going	Investigation & Feasibility 2016/17 Possible works 2018/19. Potential Grant In Aid scheme.	S19-032
28 June 2012	Keelby Eastfield Road	Surface water sewer overwhelmed due to its connection to a blocked riparian drain. 3 Properties	3	Completed	North East Lincolnshire Internal Drainage Board to clear riparian drain. Anglian Water to investigate cross contamination of foul and surface water systems. LCC to investigate the provision of a new chamber on the culverted section of watercourse in order to facilitate further investigations. Riparian owners to be advised of their responsibilities.	Anglian Water - Yes North East Lincs IDB - Yes LCC - Yes	All risk management partners have completed their actions and responsibilities.	No	AW NELIDB LCC	On-going	Investigation & Feasibility 2016/17 Possible works 2018/19. Potential Grant In Aid scheme.	S19-033
9 June 2014	Gainsborough Caldicott Drive Darwin Street Elsham Walk Hill Crescent Limber Close Marshalls Yard Priory Close Rectory Avenue Silver Street Spring Gardens Tower Street Trinity Street Long Wood Road	Over a period of 60 minutes during the afternoon 43.4mm of rain fell in Gainsborough, of which 35.6mm fell in 30 minutes (a return period of 227 years). The surface water drains and combined sewer systems were unable to cope with the intense rainfall, the various systems consequently surcharging and the resulting surface water runoff entering properties. In all around 53 properties were flooded internally. 53 Properties Caldicott Drive - 1 Property Darwin Street - 1 Property Elsham Walk - 16 Properties Hill Crescent - 1 Property Limber Close - 13 Properties Marshalls Yard - 9 Properties Priory Close - 1 Property Rectory Avenue - 1 Property Silver Street - 1 Property Spring Gardens - 1 Property Tower Street - 2 Properties Trinity Street - 3 Properties Long Wood Road - 2 Properties	53	Completed	1. That all RMA's inspect their respective infrastructure and take any necessary steps to ensure it is working as well as possible. 2. Advice be made available to victims of flooding with regard to resistance measures which might be appropriate, for example air brick covers and flood gates. 3. LCC consider improvements to the highway surface water drainage where this will offer resistance to flooding from surface runoff. 4. That the LLFA investigate the feasibility of overland flood routes to manage the risk of flooding from surface water	LCC - Yes WLDC - Yes Severn Trent Water - Yes	Consider for inclusion in Medium Term Plan. Feasibility study 2019/20.	No		On-going		S19-115
14 September 2015	Lincoln Percy Street	Customer rang to report that during Monday evenings heavy rainfall their house was flooded due to blocked drains at the bottom of the road. Customer has had to have all the carpets ripped up and the back garden was under approx 2 feet of water. 1 Property	1	Completed	To clean and jet through all sewer connections and ensure the drainage system is running clear	LCC - Yes AW - Yes	LCC to clean and jet gullies and connections	No	LCC AW	On-going	End 2015	S19-132
15 June 2016	Cherry Willingham Ancaster Close	Flooding into the property due to drainage, water in customers house. 1 Property	1	On-going	Awaiting report		Awaiting report			On-going		S19-164
15 June 2016	Cherry Willingham St Hughs Close	Cherry Willingham – pumping water from Close and flooded conservatory. 1 Property	1	On-going	Awaiting report		Awaiting report			On-going		S19-175
19 May 2017	Lincoln Frederick Street	Kitchen is flooded with clear water that may be coming from the rain? Water entered from below ground level. They have inspected their own pipework and have found no leaks. 1 Property	1	Completed						On-going		S19-188
9th August 2017	Scotter Eminson Close	Caller reported this before and extra drainage was added BUT the house is flooded at present. Fire brigade were pumping out garage and hallway after midnight this morning. Caller is very concerned about further flooding and asks that someone call her back today please as the drainage improvements are not enough. Caller refers to new properties being built taking surface drainage potential away. 1 Property	1	On-going	Awaiting report		Awaiting report			On-going		

Appendix A												
Duty to Investigate												
Section 19 Investigations												
Lincolnshire County Council Section 19 Investigations - North Kesteven District Council & South Kesteven District Council Network Area - Area Highways Rowan Smith (West)												
Date of Incident	Town / Locality	Description of Flooding	No of Properties Flooded	Investigation Status	S19 Report Recommendations / Conclusions	Risk Management Authorities with Responsibilities and whether they are exercising functions	Proposed Action/Works	Consideration for inclusion in future Common Works Programme	Promoter	Works Status	Estimated Timescales Recommendation / Scheme Completion	S19 Report File Reference
28 June 2012	Belton A607	Surface water from public highway and adjacent private land flowing onto properties. 2 Properties	2	Completed	Upper Witham Internal Drainage Board has carried out enforcement on riparian owner for watercourse improvements. LCC Highways is designing improvements to the drainage system.	LCC - Yes Upper Witham IDB - Yes Environment Agency - Yes SKDC - Yes	New drainage system/dyke renewal (seeking funding). Improvement work designed and due to be built summer 2014. Initial works have started within the private grounds, however, highway work has been delayed due to listed building status of a drystone wall. Original solution could not be built - new solution being considered. Trash screen has been installed.	No	LCC	On-going	Works have commenced; estimated completion Summer 2015.	S19-042
28 June 2012	Carlton Scroop Main Street	Surface water run-off from private land running onto highway and entering front of cottage. 1 Property	1	Completed	IDB undertaking enforcement, further LCC investigation to be carried out.	LCC - Yes Upper Witham IDB - Yes	IDB undertaking enforcement. Further LCC investigation to be carried out. System jetted, and requires new manhole but will not be placed until other issues have been resolved.	No	LCC	On-going	Outstanding works due to be completed Summer 2015.	S19-043
28 June 2012	Digby North Street	Overland flow from field into private properties, also blocked culvert/watercourse on school playing field.	Unconfirmed	Completed	LCC, Witham First IDB and the Environment Agency are to undertake local maintenance and are considering improvement works following consultation with the Parish Council. A bid for an overall flood risk study for Digby has been submitted for feasibility, design and works.	LCC - Yes Witham 1st IDB - Yes	Local maintenance work carried out by LCC, IDB & Landowner and residents on Green Dykes and North Street. Wider improvement scheme under consideration. Feasibility and Design 2016/17. Possible works 2017/18.	Yes	LCC Witham 1st IDB EA	On-going	Feasibility and Design 2016/17 Possible works 2017/18	S19-048
28 June 2012	Digby Beck Street	Overtopping of Digby Beck (Main River) and capacity issues on the foul sewer.	Unconfirmed	Completed	LCC, Witham First IDB and the Environment Agency are to undertake local maintenance and are considering improvement works following consultation with the Parish Council. A bid for an overall flood risk study for Digby has been submitted for feasibility, design and works.	Environment Agency - Yes Anglian Water - Yes LCC - Yes	Local maintenance work carried out by LCC, IDB & Landowner and residents on Green Dykes and North Street. Wider improvement scheme under consideration. Feasibility and Design 2016/17. Possible works 2017/18.	Yes	LCC Witham 1st IDB EA	On-going	Feasibility and Design 2016/17 Possible works 2017/18	S19-049
28 June 2012	Digby The Hum	Overtopping of IDB drain (Digby Beck North Branch) and riparian watercourse. Suspected failure of Anglian Water foul pumping station.	Unconfirmed	Completed	LCC, Witham First IDB and the Environment Agency are to undertake local maintenance and are considering improvement works following consultation with the Parish Council. A bid for an overall flood risk study for Digby has been submitted for feasibility, design and works.	Witham 1st IDB - Yes Anglian Water - Yes	Local maintenance work carried out by LCC, IDB & Landowner and residents on Green Dykes and North Street. Wider improvement scheme under consideration. Feasibility and Design 2016/17. Possible works 2017/18.	Yes	LCC Witham 1st IDB EA	On-going	Feasibility and Design 2016/17 Possible works 2017/18	S19-050
28 June 2012	Sleaford Southgate	Surface water from public highway and private land flowing into properties through front and rear entrances. 2 Properties	2	Completed	LCC to advise properties on self help measures relating to flood resilience. Anglian Water to investigate capacity of combined system.	LCC - Yes Anglian Water - Yes	LCC have cleaned all ACCO drains and all working OK. Awaiting AW investigation to check capacity issues.	No	LCC AW	On-going	Summer 2017	S19-053
28 June 2012	Thorpe Tilney Village Sleaford Road	Surcharging of open watercourses and assumed restrictions within culverted sections. Surcharge of public surface and foul water systems. 1 Property	1	Completed	Improvement works on watercourse undertaken November 2012. Ongoing LCC investigations, further excavations to commence to provide access for CCTV survey, also minor kerbing improvements and works issued. A meeting has been held with the Parish Council/Flood Group/National Flood Forum. A bid for an overall study for Timberland has been submitted for feasibility, design and works.	Witham 1st IDB - Yes LCC - Yes Anglian Water - Yes	Wider scheme Feasibility and Design 2017/18. Possible works 2019/20. LCC to carryout regular monitoring.	Yes	LCC	On-going	Feasibility 2017/18 Possible works 2019/20	S19-054
6 July 2012	Swaton West End	Overland surface water flowing through private land. Separate case of overtopping of Swaton Eau flooding carriageway and property basement. 2 Properties	2	Completed	The Environment Agency has completed its hydraulic modelling works. Black Sluice Internal Drainage Board has previously bid for an improvement scheme. Environment Agency / LCC have been asked to assist with scheme promotion.	Environment Agency - Yes Black Sluice IDB - Yes LCC - Yes	EA progressing a Natural Flood Management R&D project to reduce frequency of flooding to Swaton, and possibly Threkeingham and Spanby	Yes	LCC EA Black Sluice IDB	On-going	EA Feasibility Study 2017/18 Possible works 2018/19	S19-056
6 July 2012	Harlaxton High Street	Current drainage system has insufficient capacity and backed up causing flooding to the carriageway and 2 properties. 1 Property	1	Completed	Following detailed investigation, joint work between LCC and Upper Witham IDB has been completed. Investigation to Mow Beck required to understand overall flood risk.	LCC - Yes Upper Witham IDB - Yes Anglian Water - Yes	LCC surface water scheme completed and EA to investigate Mow Beck watercourse downstream.	Yes	LCC EA	On-going	Summer 2015	S19-060
6 July 2012	Burton Pedwardine White Cross Lane	Surface water surcharge from private open watercourse to the east. 2 Properties	2	Completed	Black Sluice IDB to carry out enforcement. Resident met and awaiting proposals which may be subject to a highway contribution. Awaiting confirmation.	Black Sluice IDB - Yes	Discussions still ongoing between LLFA, IDB and residents. LCC have found and cleaned 2 pipes under road.	No	LCC Black Sluice IDB	On-going	Summer 2015	S19-062

6 August 2012	Caythorpe Gorse Hill Lane	Following an intense period of rain, excess surface water did not drain away fast enough from the gully at the boundary with Kings Hill. This caused surface water to flow across the carriageway and breach the verge and enter the property's driveway, subsequently overtopping the threshold causing internal flooding. 1 Property	1	Completed	The profile of the carriageway may cause excess surface water to miss gullies at the boundary of Kings Hill. The installation of a vehicular access built to the correct specification may also prevent further occurrences of flooding by increasing the kerb height between the carriageway and the property.	LCC - Yes	Further investigations of the surface water system required, possibly aided by development plans for Kings Hill. Level survey and wet weather inspection to be carried out to establish validity of highway drains. Inspections & cleansing carried out and further investigations required.	No	LCC	On-going	Summer 2016	S19-068
21 November 2012	Corby Glen Irnham Road	Overland flow from adjacent farm land. 1 Property	1	Completed	Resilience measures the property owner has taken will reduce the risk of surcharge from the private drain (non-return valve added). Works that have been undertaken by LCC Highways including jetting & CCTV of the system have identified possible improvement works, this would include additional inspection chambers and updating the system. Application for additional funding has been submitted for the installation of inspection chambers and upgrade of the sewer system.	LCC - Yes	Application submitted for funding to add inspection chambers and upgrade sewer system along a short section of Irnham Road.	No	LCC	On-going	End 2015	S19-069
22 May 2014	Bourne Beadhouse Bank	Due to heavy rainfall surface water built up on the unmade road outside the property to an extent where it flowed into the garden to the front door, at which point it entered the property. 1 Property	1	Completed	LCC highways are undertaking a resurfacing scheme of Beadhouse Bank, this will level the road with a cross fall towards the existing tarmac section, water will flow away from the properties towards the existing highway gully. The resident has been recommended to install a kerb line to act as a barrier between the highway and the private property. However, LCC to carry out footway improvements works in the area in 2015.	LCC - Yes	Resurfacing scheme to be undertaken including the construction of a kerb line between the private property and highway to act as a barrier.	No	LCC	On-going	End 2015	S19-080
22 May 2014	Dorrington Main Street	During a period of heavy rainfall this property suffered internal flooding from the lateral sewer beneath the property where water came up through the living room floor. The second event was caused by overland flow where flood water from the garden came in through the rear patio doors. 1 Property	1	Completed	Following investigations it is assumed that saturated land and heavy rainfall caused overland water to flow down the gradient to the property. The lateral sewer located beneath the property was blocked by foreign objects which caused the sewer to burst and push water up through the floor. Anglian Water investigated as to where the excess water came from and suggested that it may have gained access from the foul system through the kitchens open gully's at the rear of the property. LCC highways are considering installing additional gullies near the property and undertake a survey of the dyke to the rear of the property to determine the outfall on the southern side of the village. Anglian Water to carry out further investigations into ensuring where possible, the excess surface water does not enter the foul water system. The Internal Drainage Board has been requested to continue monitoring of the dykes, and take enforcement as necessary.	LCC - Yes Anglian Water - Yes	LCC have installed new gullies near the property. no other updates required. AW to carryout investigations into the foul sewer system. IDB to continue the monitoring of the dykes and enforce as required. Riparian owner to maintain the dykes and ensure they do not restrict their flow.	No	LCC AW IDB	On-going	Summer 2017	S19-084
22 May 2014	Market Deeping Stamford Road	Following heavy rainfall that fell in a short space of time; causing numerous roads and properties in the area to flood. The amount of rain that fell was excessive for the system at optimum capacity. 1 Property	1	Completed	LCC to continue to maintain the surface water system; and consider raising the footway kerbs at the front of the property. However, works to the footway may prove difficult due to conflict with a slope to the footpath away from the building and the existing height of the door threshold and damp proof course levels. Anglian Water to maintain the surface water drainage system. The property owner to maintain the rainwater systems and consider further drainage to allow the escape of water from the rear 'bund' area which is a natural water collection area.	LCC - Yes Anglian Water - Yes	Consideration by LCC have been made to lift the footpath and Kerb outside the properties to full height, to prevent water overtopping the kerb onto the footway. However there may be issues in doing this. Awaiting report from AW.	No	LCC AW	On-going	End 2015	S19-112
22 May 2014	Deeping St James Horsegate	Following torrential rain, excess water on the carriageway forced water to overtop the footway and enter the properties causing internal flooding to the public house. 1 Properties	1	Completed	LCC to repair blockages in highway surface water system. Welland & Deepings IDB to clear the identified blockages /diversion in their system and ensure the entry feed in the High Street is closed during weather warnings or during periods of heavy rain to ensure there is capacity for surface water two drain away. AW to maintain the surface water drainage systems with recommendation that its system diverts into the watercourse on the High Street instead of linking with the WDIDB watercourse. Resident to consider adding drainage to their exit to the driveway.	LCC - Yes Anglian Water - Yes WDIDB - Yes	Maintenance work to be carried out by LCC. Property owner advised on preventative measures to protect the property. AW to clean & jet its system and divert the current system into the watercourse on the high street. its their entry feed on the High Street is closed during periods of heavy rain.	No	LCC AW WDIDB	Completed	Completed December 2014	S19-105
22 May 2014	Deeping St James Horsegate	Following torrential rain, excess water on the carriageway forced water to overtop the footway and enter the properties causing internal flooding to the residential properties. 3 Properties	3	Completed	LCC to repair blockages in highway surface water system. AW to maintain the surface water drainage systems with recommendation that its system diverts into the watercourse on the High Street instead of linking with the WDIDB watercourse. Welland & Deepings IDB to clear the identified blockages /diversion in their system and ensure the entry feed in the High Street is closed during weather warnings or during periods of heavy rain to ensure there is capacity for surface water two drain away.	LCC - Yes Anglian Water - Yes WDIDB - Yes	Maintenance work to be carried out by LCC. Property owner advised on preventative measures to protect the property. AW to clean & jet its system and divert the current system into the watercourse on the high street. its their entry feed on the High Street is closed during periods of heavy rain.	No	LCC AW WDIDB	On-going	End 2015	S19-106

22 May 2014	Market Deeping Market Place	Following torrential rain, there was excess water on the carriageway. The surface water drains were overwhelmed and when vehicles passed through the standing surface water, bow waves forced water to overtop the footway and enter the properties causing internal flooding. 1 Property	1	Completed	LCC to carry out maintenance work on the surface water drainage system. AW to maintain utility surface drainage systems. Property owner to maintain the rainwater drainage systems and consider further drainage to allow the escape of water from the low front area.	LCC - Yes Anglian Water - Yes WDIDB - Yes	Maintenance work to be carried out by LCC. Property owner advised on preventative measures to protect the property. AW to continue with regular inspections & maintenance.	No	LCC AW	On-going	Summer 2015	S19-107
22 May 2014	Market Deeping Market Place	Following torrential rain that fell in a short period, excess surface water on the carriageway, forced water to overtop the footway by passing vehicles and enter the property causing internal flooding. 1 Property	1	Completed	LCC to carry out maintenance work on the surface water drainage system. Aw to maintain utility surface drainage systems. Property owner to maintain the rainwater drainage systems and consider further drainage to allow the escape of water from the low front area.	LCC - Yes Anglian Water - Yes	Maintenance work to be carried out by LCC. Property owner advised on preventative measures to protect the property. AW to continue with regular inspections & maintenance.	No	LCC AW	On-going	End 2015	S19-108
20 July 2014	Stamford Water Street	Following a short period of heavy intense rain, surface water from the highway entered the ground floor of the property. 1 Property	1	Completed	LCC to undertake a drainage survey of the system this work has been programmed for 2015	LCC - Yes	carry out a survey of the drainage system Works are programmed during 2015.	No	Due to complete Summer 2015	On-going	End 2015	S19-116
10 August 2014	Stamford Northumberland Avenue	Due to heavy rainfall, and a waterlogged public open space in front of the property; excess groundwater encroached the threshold and entered the property damaging the hallway carpets and flooring. 1 Property	1	Completed	All highway surface water gullies had been cleaned out and jetted prior to the flooding incident, although we have recommended that the system have further investigations carried out in due course. It is believed the Highway surface water system was not the cause of flooding to the property other than the public open space. AW are to survey the site to ascertain whether the combined drainage system is sufficient to accommodate all the downpipe connections from the properties. SKDC to survey the Public Open Space and identify the manhole cover and determine which drainage system it is connected to and if the manhole/catchpit is clear.	LCC - Yes SKDC - Yes Anglian Water - Yes	LCC to carry out CCTV investigations of the highway drainage system. SKDC to carry out investigations of the drainage system within the public open space. AW to ascertain whether the combined drainage system is adequate to serve the properties.	No	LCC SKDC AW	On-going	End 2015	S19-111
24 August 2015	Grantham Coxmoor Close, Cavendish Way	Reports received stated that on 24th August and 14th September 2015 water entered 4 properties, 2 on Cavendish Way and 2 on Coxmoor Close. The incidents were caused by excessive rainfall which lead to the levels of the adjacent Witham Brook to rise substantially with the resultant flood water escaping the banks of the stream and entering several of the nearby properties. The rise in the level of this stream also meant that the surface water sewer that services the roads in the area had nowhere to discharge to and this exacerbated the problems experienced by the residents. 4 Properties Coxmoor Close - 2 Properties Cavendish Way - 2 Properties	4	Completed	The Witham Brook requires major maintenance works, which will need to be carried out by the EA. A trash screen will also need to be installed by the EA. They also need to investigate the possible construction of a storage lagoon in association with SKDC & LCC.	LCC - Yes Anglian Water - Yes Environment Agency - Yes	EA recently commissioned works to reprofile the channel of the Witham Brook in this area and these works have now been completed. The scheme also included the creation of a berm to increase water storage in the area. LCC investigating the feasibility of a scheme to reduce frequency of surface water flooding from Witham Brook, which would also reduce flooding to the small number of properties at risk of flooding from the main river.		EA	On-going		S19-136
24 August 2015	Westborough Town Street	Water entered rear of property during severe rain fall. 1 Property	1	Completed	Upper Witham IDB is aware of the flood risk issues within the village and have designed a scheme. Currently awaiting funding.	Upper Witham IDB - Yes	Await implementation of IDB drainage scheme.		Upper Witham IDB	On-going		S19-144
24 August 2015	Grantham Bridge End Road	Date of Incident – all on the evening of 24/8/15 (all retrospective enquiries) Source of Report – Lincolnshire Fire & Rescue (F&R) Enquiry code – FL06 Flood Invest Risk to Life/Prop Detail of each report – site was attended by F&R reacting to flooding - 1 Property	1	Completed	Initial investigations M Thornhill letter sent out to resident 14/09/2015. Awaiting confirmation of internal flooding.	LCC - Yes Anglian Water - Yes	Awaiting report	No		On-going		S19-147
4 July 2015	Tallington Bainton Road	The customer informed me that the main cause of flooding is water backing up coming out of the four gullies in front of property. These gullies are LCC, but the LCC system here feeds into a AW surface sewer about 10-15m downstream. Water backs up and comes out of the LCC gullies, I assume from the AW surface sewer and then floods the property. AW have been doing a lot of investigation into this system over the past few months. 1 Property	1	Completed	The gullies are programmed to be cleaned and jetted out to ensure the system is flowing well. Due to the proximity to the level crossing a risk assessment is required to be signed off by Network Rail prior to any works commencing. AW to investigate the sewer system and inspect and service the flood gates at the property to ensure they are fit for purpose.	LCC - Yes Anglian Water - Yes	A program of gully cleaning to be carried out shortly, also AW to inspect and service the flood gates at the property that they installed. Additionally the sewer system requires further investigations to be carried out by AW.	No	LCC AW	On-going	Spring 2016	S19-129
15 June 2016	Welbourn Cliff Road	Water is not flowing now but this morning just before caller got up he says there was a heavy downpour. The surface water has entered callers kitchen and living room on the ground floor. The road was surface dressed recently and caller thinks this is possibly the reason why it has entered the property 1 Property	1	On-going	Due to no previous flooding prior to surface dressing it is recommended to lift all the centre kerbs to re-establish a 25mm upstand. In agreement with resident, it is recommended to raise the existing kerbs directly outside footpath to a full 110mm upstand. Dyke also to be unblocked to allow gully to catch surface water and outfall into dyke.	LCC - Yes	Due to no previous flooding prior to surface dressing it is recommended to lift all the centre kerbs to re-establish a 25mm upstand. In agreement with resident, it is recommended to raise the existing kerbs directly outside footpath to a full 110mm upstand. Dyke also to be unblocked to allow gully to catch surface water and outfall into dyke.		LCC	On-going		S19-167

16 June 2016	Potterhanworth Under Railway Bridge on Station Road	Police are requesting a road closure at this location. Carriageway Flooded	0	Completed	Repeat of previous flooding. Refer to S19-131.		Repeat of previous flooding. Refer to S19-131.			On-going		S19-180
6 July 2012	Billingborough West Road,	The village of Billingborough suffered surface water flooding on West Road and Station Road on the 5 th July 2012 and 22 nd May 2014. Billingborough Parish Council made Lincolnshire County Council aware of this fact in August 2014, however, Lincolnshire County Council had not received any other reports that two residential properties were internally flooded during the event on 22 May 2014. These internal flood events were not reported to Lincolnshire County Council at the time of the incident. 2 Properties	2	Completed	A part CCTV survey was conducted by Anglian Water in March/April 2015. This had identified bricks missing from the soffit of the brick culvert and mass root ingression into the culvert in a section in Station Road. At the time of writing this report Anglian Water were preparing to carry out excavations in the affect area to repair the culvert and once this was carried out, full jetting of the sytem was to take place and CCTV survey to contine. Local Lead Flood Authority, Anglian Water and Lincolnshire County Council as Highway Authority to contune liaison and monitoring of the area. Upon publication of the Enviornment Agencies catchment study all risk Management Authorites to consider where appropriate any conclusions or recommendations derived from this study. LCC have carried out the level survey works to protect the properties and will be complited by 31/03/2017.	LCC - Yes Anglian Water - Yes	Anglian Water were preparing to carry out excavations in the affect area to repair the culvert and once this was carried out, full jetting of the sytem was to take place and Local Lead Flood Authority, Anglian Water and Lincolnshire County Council as Highway Authority to contune liaison and monitoring of the area. CCTV survey to contine. County Council as the Highway Authority to carry out a full level survey of the road levels to see if any accomadation/adjustment works could take place to reduce the possibility of highway surface water reaching the properties. AWS are still investigating and are proposed to have completed their surveys and any works required by summer 2017. Minor works have been carried out by	No	LCC Anglian Water	On-going	Summer 2017	S19-162
22 May 2014	Billingborough West Road, Station Road	The village of Billingborough suffered surface water flooding on West Road and Station Road on the 5 th July 2012 and 22 nd May 2014. Billingborough Parish Council made Lincolnshire County Council aware of this fact in August 2014, however, Lincolnshire County Council had not received any other reports that two residential properties were internally flooded during the event on 22 May 2014. These internal flood events were not reported to Lincolnshire County Council at the time of the incident. 2 Properties	2	Completed	A part CCTV survey was conducted by Anglian Water in March/April 2015. This had identified bricks missing from the soffit of the brick culvert and mass root ingression into the culvert in a section in Station Road. At the time of writing this report Anglian Water were preparing to carry out excavations in the affect area to repair the culvert and once this was carried out, full jetting of the sytem was to take place and CCTV survey to contine. Local Lead Flood Authority, Anglian Water and Lincolnshire County Council as Highway Authority to contune liaison and monitoring of the area. Upon publication of the Enviornment Agencies catchment study all risk Management Authorites to consider where appropriate any conclusions or recommendations derived from this study. LCC have carried out the level survey works to protect the properties and will be complited by 31/03/2017.	LCC - Yes Anglian Water - Yes	Anglian Water were preparing to carry out excavations in the affect area to repair the culvert and once this was carried out, full jetting of the sytem was to take place and Local Lead Flood Authority, Anglian Water and Lincolnshire County Council as Highway Authority to contune liaison and monitoring of the area. CCTV survey to contine. County Council as the Highway Authority to carry out a full level survey of the road levels to see if any accomadation/adjustment works could take place to reduce the possibility of highway surface water reaching the properties. AWS are still investigating and are proposed to have completed their surveys and any works required by summer 2017. Minor works have been carried out by	No	LCC Anglian Water	On-going	Summer 2017	S19-162
24 August 2015	Long Bennington Main Road Vicarage Lane Welbournes Lane Acklands Lane Church Street Orchards Park	The incident appears to be simply one where heavy rain overwhelmed the piped sewer and watercourse systems. The rain could not enter the various systems, found overland routes and settled in the low points. These overland routes were channelled by the fall of the natural ground level, augmented by the new developments and/or householders - increasing hard standing - using soakaways and permeable pavements - undertaking topographical realignment. Some of the village is served by a combined public sewer and this was likewise overwhelmed and caused flooding. 25 Properties Main Road - 13 Properties Vicarage Lane - 2 Properties Welbournes Lane - 3 Properties Acklands Lane - 1 Property Church Street - 5 Properties Orchard Park - 1 Property	25	Completed	Investigations into conditions of drainage assets have already been carried out by LCC, AW/STW and IDBs, with remedial action taken as appropriate, mainly to do with cleansing. It is recommended that - there is further investigation undertaken to determine possible overland flow paths and storage areas, - the RMAs continue to repair deficiencies, - watercourses are cleansed and desilted, including those culverted lengths - the planning authority or appropriate authority apply relevant policies when considering how proposals affect groundwater, current exceedance flow routes and potential loss of safe flood storage.	LCC - Yes LLFA - Yes Anglian Water - Yes STW - Yes SKDC - Yes UWIDB - Yes TVIDB - Yes	There is a further investigation undertaken to determine possible overland flow. Paths and storage areas. The RMAs continue to repair deficiencies. Watercourses are cleansed and desilted, including those culverted lengths. Include potential flood alleviation scheme in the Medium Term Plan.	Yes	LCC	On-going	2019/20	S19-137
14 June 2016	Woolsthorpe by Belvoir Sedgebrook Road, Hillside Road	Internal flooding - fire and rescue in attendance with pumps and sandbags distributed by SKDC 6 Properties	6	On-going	Report and investigation being undertaken. Report expected July 2017.					On-going		S19-178
15 June 2016	South Witham Great Close	Caller reports that water entered the property last night at each of the addresses. SKDC supplied sandbags to all of them. 1 Property	1	On-going	Written twice and no reply or evidence apart from the report which was second hand.		Awaiting report.			On-going		S19-173
14 June 2016	Bourne Beech Avenue	Fire & Rescue called, 4 fire engines attended – pump used to remove flood water inside 1 Property	1	Completed	Concusions: the inlet screen of the culvert was blocked by vegetation which could have been a contributing factor to the flood event. There is concern over the 400mm diameter pipe above the two 300mm diameter pipe section. There is also concern over the route of the downstream public sewer system which could be a contributing factor. A fire brigade attended to pump out the surface water standing in Beech Avene, however the water level only started to drop once an AWS manhole cover was lifted to allow the water to drain into the AWS surface water system, which suggests that the culverted watercourse was blocked upstream during the flood event. The homeowner of the flooded property has taken steps to protect their property.					On-going		S19-170

10 March 2016	Welby Main Street	Pooling water in the wider part of the road close to the pedestrian pathway that is in poor condition and sitting lower than the main section of the road. The rainwater simply runs from the camber into this area and misses the gulleys each side of the front of my property. It tends to sit there for a few days once it has stopped raining. As each winter passes the small section of road further deteriorates. I paid for a pothole to be filled in when having some private tarmac work done in the summer as we were unable to avoid running through it and making it worse. 1 Property	1	Completed	Water did not enter the property and we have since found that this was a AW issue that they have now resolved. Additional info: Just to point out that the problem is across the full width of the property starting at the bus stop gulley and stretching across to the gulley adjacent to Cottage. Between the 2 roadside verges.	AW - Yes	No further action required		AW	On-going		S19-157
10 June 2016	Bourne North Road	Internal flooding following heavy rainfall. Entered property through air bricks and door threshold. 2 Properties	2	Completed	LCC and AW to consider future works	LCC - Yes AW	LCC and AW to consider future works			On-going		S19-152
16 June 2016	Bourne Spalding Road	Flooding from rain from collapsed drain which has not been repaired. Water has entered Customers kitchen. 1 Property	1	Completed	Maintenance is required of private drainage. Action should be considered to prevent domestic roof water discharging onto the highway.	LCC - Yes AW - Yes	CCTV investigation required. Awaiting report			On-going		S19-168
28 June 2017	Grantham Dudley Road	Water entered into the basement of the property (customers son's bedroom) and constant buckets were required to keep the water under control. Customer advised that gully drains either side of the house are overflowing and that water drain covers outside in the road are 'lifting' under pressure of water. 1 Property	1	On-going	Awaiting report		Awaiting report			On-going		S19-190
14 June 2016	Bourne Edenham Road	The home owner reported to have surface water run-off coming from the highway, internally flooding the property via the dining room patio doors and under the floor. The highway is drained by an open ditch and a surface water pipe which runs under the highway. The open ditch located parallel to the A151 opposite the property is allegedly often blocked with debris and it is unknown who owns the surface water pipe. Due to insufficient drainage on the highway the water is gathering at a low point opposite the property, passing vehicles are then causing the surface water to flow over the verge and into the property as it is located on a slope. 1 Property	1	Completed	Conclusions - The cause of flooding appears to be a combination of a number of inadequacies in the existing drainage arrangements. 1: a lack of ownership and/or maintenance of both the open watercourse and culvert below the A151. 2: Possible capacity issues with the culvert below the A151. 3: Possible capacity issues with the riparian culverted watercourse draining surface water through Pond Farm. 4: Standing water on the carriageway overflows onto the lower lying Pond Farm during significant storm events, the situation exacerbated by vehicles passing through the flooded carriageway.					On-going		S19-194

Appendix A												
Duty to Investigate												
Section 19 Investigations												
Lincolnshire County Council Section 19 Investigations - Boston Borough Council & South Holland District Council Network Area - Area Highways Andy Wharff (South)												
Date of Incident	Town / Locality	Description of Flooding	No of Properties Flooded	Investigation Status	S19 Report Recommendations / Conclusions	Risk Management Authorities with Responsibilities and whether they are exercising functions	Proposed Action/Works	Consideration for inclusion in future Common Works Programme	Promoter	Works Status	Estimated Timescales Recommendation / Scheme Completion	S19 Report File Reference
28 June 2012	New Bollingbrooke Station Row	Extreme rainfall (estimated to be a 1 in 40 year event) caused highway surface water flows to collect in the low area of Main Road/Station Row overwhelming the highway drainage system in the footway. 7 Properties	7	Completed	LCC has investigated the drainage and found blockages/damage due to buildings and tree roots. A solution to rectify the damage is being designed and costed.	LCC - Yes	Dropped kerbs outside the post office replaced with full height kerbs. Drainage system found to be damaged by buildings/trees and a new outfall is required. Solution being designed and costed.	No	LCC	On-going	2014 - 2016	S19-007
6 July 2012	Donington Quadring Road	The footway along the front of the property is lower than the carriageway and has its own series of gullies. The carriageway is served by gullies and drained separately. The Highway Authority (LCC) has no records of the carriageway or footway drainage piped system in this area. 1 Property	1	Completed		LCC - Yes			LCC	On-going		S19-039
20 July 2014	Swineshead Market Place	Flooding to the business occurred following a heavy downpour. The business suffered internal flooding due to surface water runoff from the carriageway entering the car park and subsequently entering the property. 1 Commercial Property	1	Completed	The entire drainage system has been jetted and cleaned; a new connection from both of the alleys is programmed. The drainage system requires a new chamber and new connections to the highway drainage system in the carriageway. The adjacent property owner has an irregular outfall into the alley way; he has been notified to find an alternative way to discharge surface water from the property. Additionally, the low spots in the alley way that allows surface water to flow from the highway around the back of the public house will require modifying to provide a water check to prevent this re-occurring. All works required will be programmed for 2015.	LCC - Yes	New connections, chamber pots and minor highway alterations are currently in the works programme for next financial year.	No	LCC	On-going	Summer 2015	S19-103
20 July 2014	Crowland Chapel Street	The road gully outside the property was unable to cope with the excessive amount of rainfall which resulted in surface water entering into the property, causing damage to the dining room and lounge. 1 Property	1	Completed	The drainage system has been jetted; and indicated a possible blockage within the system. Excavations have been carried out and no blockage was detected within the drainage system. Since the reported incident there has been further heavy prolonged downpours within the area with no repeat of the previous flooding incident in July. It has been concluded that the current system is slow running and the surface water was exasperated due to the excessive amount of roof water flowing onto the highway from the property opposite. Further investigations will be carried out in due course.	LCC - Yes	Further Drainage Investigations to be carried out in due course. An enforcement letter has been sent to the property opposite which is discharging water onto the highway. Meeting with owner of property opposite to identify any amendments which may be required to their roof water dispersal system. Preliminary designs, undertaken for proposed alterations to LCC Surface Water drainage. Scheme in programme for 2017/18. Bid submitted for assistance from Floods and Water as this is not maintenance.	No	LCC	On-going	8 July 1905	S19-113
17 June 2016	Spalding Stonegate	Customer states that this is the 5th time the properties have flooded since November 2011. The customer states that the drainage system is too old and cannot take the rain in exceptional rain. They say the drains are not man enough and the fire brigade has also said this. Customer states that the properties were flooded yesterday 16/06 in the evening and the fire brigade attended. Customer states that if it rains again the properties will once again get flooded. The customer states that the current drains need cleaning out and the whole system needs replacing with a better more modern system. 4 Properties	4	On-going	The highway drainage system has been jetted and there are no blockages. It may be a capacity issue? Awaiting report- expecting completion date end of October 2017.		CCTV survey required.			On-going		S19-171
10 June 2016	Spalding Little London	Flooding incident on 10/06/16. Third such incident in 3 years. Flood water was up to 5" deep within the property. AWA have attended and state it is a result of surface water. They previously accepted responsibility when their own main drain was blocked. Other properties known to be effected but could be whole strip of houses. 1 Property	1	Completed	Report conclusions: the drainage investigation revealed multiple deficiencies in the drainage network which mainly involve riparian and highway authority responsibilities.		CCTV survey required.			On-going		S19-174
16 June 2016	Kirton Penny Gardens	Water has started to enter properties after persistent rain for most of the afternoon. Customer believes that this is due to a blocked gully. 1 Property	1	Completed	There are issues with the surface water disposal system. The gullies on Penny Gardens are cleansed by the highway authority but there appears to be no record of any authority accepting maintenance responsibility for the connecting pipework. The culvert on the line of historical watercourses appears to have been damaged by utilities where it crosses the Willington Road. Water appears to have problems in discharging to the watercourse due to the outfall condition and the system being silted.	BBC AW BSIDB LCC	Awaiting report CCTV required			On-going		S19-169

16 June 2016	Kirton Station Road	Flooding from rainfall and blocked drain. 3 Property	3	Completed	There appears to be a system in The Green, outside the Codfather, Curry King and the War Memorial but the gully system has been crushed, it contains a high level of siltation, and is filled with congealed fat. The culvert is full of silt and appears not to discharge anywhere. The brick arch pipework appears to be a culverted watercourse but its route is unknown. There are no surface water sewer systems in the area, some of the properties may discharge surface water into the foul public sewer system, which is believed to be a combining system. A bung was located in the pipe upstream south of the manhole in front of the Codfather however it is unlikely this had a major effect on the system.	BBC AW BSIDB LCC	Awaiting report CCTV required			On-going		S19-169
16 June 2016	Kirton Green Lane	It is likely that the property may have been inundated as a consequence of the extreme nature of the event but the severity of the flooding may not have been so severe, and a lower degree of ponding noted, if the system in the Hardwick Estate surface water system was operating efficiently, but the intensity of the rainfall and the property's location were probably major factors. 1 Property	1	On-going	Only one property was internally flooded on the Hardwick Estate, but there were reports of excessive standing water in locations where those piped sewerage systems that were constructed to serve the development do not appear to have been adopted or maintained by any public authority, nor by the housing authority. The watercourse into which the system appears to discharge appears to be heavily silted	TBC	TBC			On-going		S19-169
27 June 2016	Freiston Oak House Lane	Customer states that the rain flows down the road and into the shop. The customer has requested the fire brigade attend last year and they had to pump the shop out. The shop flooded again yesterday 26/06/16 and they managed to clear it themselves with a lot of work and help. The customer states there was a new drain put in, but this is doing nothing to alleviate the situation. 1 Property	1	On-going	Awaiting report		Awaiting report			On-going		S19-181
23 to 27 June 2016 25 to 28 August 2016	Spalding Cathedral Drive	Customer states that water from the road floods his front and then back garden and has entered his property in the hall. He said that it also happened 2 months ago and that both his neighbours have the same issue. 1 Property	1	Complete	When the system was cleaned out in April 2016 there were no issues with the gullies so it is more likely to be a problem with the outfall. This site is on the jetting programme. Report expected completion date end October 2017.		Investigations on-going. Awaiting report CCTV required.			On-going		S19-184
25 June 2016	Spalding Woolram Wygate	Contacted by a building consultant who is investigating an insurance claim regarding surface water flooding at this property. The lounge of the property flooded on two occasions 25th June and 28th August 2016 during intense rainfall and water drains quickly once rainfall stops. 1 Property	1	Completed	To be raised at the local Flood and Drainage Risk Management Group.	Inconclusive as the owner of the drainage assets is unknown at this stage.	To be raised at the local Flood and Drainage Risk Management Group			On-going		S19-182
16 June 2016	Low Fulney, Spalding Mallard Road Weston Hills Road	After the recent heavy rainfall, surface water ran off the road & possibly surrounding land and flooded these properties. This is a private road and there is very little positive drainage. 3 of these properties (No 9, 11 & 13 Mallard Road) flooded again on 27 August 2016. 7 Residential Properties 1 Commercial Property Mallard Road - 7 Properties Weston Hills Road - 1 Property	8	Completed	Drainage recommendations: the drainage relies on riparian watercourses, steps need to be taken to ensure that the watercourses are returned to a serviceable standard.					On-going	1 May 2017	S19-185
27 August 2016	Frampton Middlegate Road	Water entered dining room. 1 Property	1	On-going	Division asked TSP to investigate. Report expected completion date October 2017.		Awaiting report CCTV investigation required.			On-going		S19-183
28 June 2017	Kirton London Road	Water came off the highway into neighbours drive and garden which then travelled to customers property. Water is getting into the air bricks and damaging the wallpaper and flooring. 1 Property	1	Completed	The property reportedly flooded on 16 June 2016 also. The report concluded that - the property was flooded by a less than extreme rainfall event. - The soakaways serving the properties were unable to deal with the flow. - The highway drainage system is unable to fully serve the highway and there is no single discharge system. - There is a culverted watercourse on both sides of London Road, which along with other riparian controlled watercourses do not appear to benefit from maintenance.	TBC				On-going		S19-189
20 July 2017	Tydd St Mary Church Way	Water entered the kitchen of the property through the brickwork. The customer believed there was 2-3 inches of water which was caused by heavy rainfall/porous brickwork. The customer states that the footway cambers away from the road where the drains are and instead cambers towards the property. 1 Property	1	On-going	Awaiting report - expected completion date end December 2017.		Awaiting report			On-going		S19-191

TBC (Could be 10/6/2016)	Spalding Coronation Avenue	<p>Reported to LCC on 8 June 2017</p> <p>1st Property: The water came up through the floor between my house and next door that are joined together. It flooded in the customers kitchen where the cooker is and cupboards, all underneath the cupboards was wet, the water came in both sides of my fireplace and flooded each side and because the drains could not hack the amount of water that poured down it started to come through my back door as well as my front, we could not step outside without getting wet through.</p> <p>2nd Property: Parts of the property flooded - living room, kitchen, hall, all down stairs</p> <p>3rd Property: Area flooded - living room and front door leading to stairway. Customer believes the reason for flooding is it rained hard for 2 hours on June 10th. The sewerage pump couldn't take the water off the homes roofs. Pushed inspection cover off. The drains in the avenue are all blocked. The avenue is 18 inches higher at the top than the bottom. With the drains being blocked all the water runs.</p>	3	On-going	Awaiting report		Awaiting report			On-going	S19-138
27 December 2017	Spalding Little London	<p>Flooding outside the property resulted in water entering the property and causing wet carpets. Water entered the property again on the 29th December 2017.</p> <p>1 Property</p>	1	On-going		LCC	Raise Kerbs, Cleanse the system, Consider additional carriageway drainage	No	LCC	On-going	S19-197

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**Open Report on behalf of Richard Wills,
Executive Director Responsible for Democratic Services**

Report to:	Flood and Water Management Scrutiny Committee
Date:	26 February 2018
Subject:	Flood and Water Management Scrutiny Committee Work Programme

Summary:

This item enables the Committee to consider and comment on the content of its work programme for the coming year 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 (Appendix A).

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 Committee is invited to:

- (1) review, consider and comment on the work programme as set out in Appendix A to this report;
- (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 general 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.

Purpose of Scrutiny Activity

Set out below are the definitions used to describe the types of scrutiny, relating to the items on the Committee Work Programme:

Policy Development - The Committee is involved in the development of policy, usually at an early stage, where a range of options are being considered.

Policy Review - The Committee is reviewing the implementation of policy, to consider the success, impact, outcomes and performance.

Performance Scrutiny - The Committee is scrutinising periodic performance, issue specific performance or external inspection reports.

Consultation - The Committee is responding to (or making arrangements to) respond to a consultation, either formally or informally. This includes pre-consultation engagement.

Requests for specific items for information should be dealt with by other means, for instance briefing papers to members.

Identifying Topics

Selecting the right topics where scrutiny can add value is essential in order for scrutiny to be a positive influence on the work of the Council. Members may wish to consider the following questions when highlighting potential topics for discussion to the committee:-

- Will Scrutiny input add value?
Is there a clear objective for scrutinising the topic, what are the identifiable benefits and what is the likelihood of achieving a desired outcome?
- Is the topic a concern to local residents?
Does the topic have a potential impact for one or more section(s) of the local population?
- Is the topic a Council or partner priority area?
Does the topic relate to council corporate priority areas and is there a high level of budgetary commitment to the service/policy area?
- Are there relevant external factors relating to the issue?
Is the topic a central government priority area or is it a result of new government guidance or legislation?

Scrutiny Review Activity

Where a topic requires more in-depth consideration, the Committee may commission a Scrutiny Panel to undertake a Scrutiny Review, subject to the availability of resources and approval of the Overview and Scrutiny Management Board. The Committee may also establish a maximum of two working groups at any one time, comprising a group of members from the committee.

Work Programme items on scrutiny review activity can include discussion on possible scrutiny review items; finalising the scoping for the review; consideration and approval of the final report; the response to the report; and monitoring outcomes of previous reviews.

Terms of Reference

The terms of reference of the Flood and Water Management Scrutiny Committee were considered as part of the review of overview and scrutiny undertaken by the County Council during 2016.

Membership

The County Council will determine the number of members of the Council who will serve on the Flood and Water Management Scrutiny Committee along with seven co-opted non-executive district councillors, one to be nominated by each of Lincolnshire's seven district councils.

The seven co-opted district councillors will have full voting rights on the Committee and replacement members will be permitted, as set out in the scheme adopted by the County Council in accordance with paragraphs 11-13 of Schedule A1 of the Local Government Act 2000.

The Flood and Water Management Scrutiny Committee will meet as frequently as is required to perform its role.

Terms of Reference

The Flood and Water Management Committee will be authorised to consider the following:

- The development and delivery of the Local Flood Risk Management Strategy; including the delivery of the Lincolnshire Common Works Programme.
- The effectiveness of the Lincolnshire Flood Risk and Drainage Management Partnership and related partnership developments.
- Lincolnshire County Council's delivery of its local leadership role in relation to flood and water management.
- The work of all flood risk management authorities operating within Lincolnshire.

- The local implementation of the Environment Agency-led National Strategy for Flood Risk and Coastal Erosion.
- Action plans relating to all relevant plans and strategies, such as (but not exclusively) Shoreline Management Plans and Catchment Flood Management Plans (main rivers).
- All major strategic initiatives relating to water management.
- The Greater Lincolnshire Local Enterprise Partnership's Water Management Board, including the development and implementation of its Water Management Plan.
- Any other matter with particular relevance to flood risk and water management within Lincolnshire or likely to affect Lincolnshire.

2. Conclusion

The Committee's work programme for the coming year is attached at Appendix A to this report.

Members of the Committee are invited to review, consider and comment on the work programme as set out in Appendix A 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' listed.

3. Consultation

a) Have Risks and Impact Analysis been carried out?

Not Applicable

b) Risks and Impact Analysis

Not Applicable

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Flood and Water Management Scrutiny Committee – Work Programme

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 Daniel Steel, Scrutiny Officer, who can be contacted on 01522 552102 or via email Daniel.steel@lincolnshire.gov.uk ,

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Flood and Water Management Scrutiny Committee

26 FEBRUARY 2018 – 10:00am		
Item	Contributor	Purpose
Anglian Water Draft Water Resources Management Plan	David Hickman, Growth & Environment Commissioner	Consideration of the Anglian Water Draft Water Resources Management Plan consultation to enable direct member input while the consultation is live.
Environment Agency Update	Environment Agency	Updates to Committee on Environmental Agency Activities, including progress on key schemes.
Saltfleet to Gibraltar Point Strategy Review Consultation	Environment Agency	Consultation input into the review of the management of coastal flood risk on the Lincolnshire coast between Saltfleet and Gibraltar Point.
Lincolnshire Partnership Response to Localised Flooding	Paul Brookes, Flood Risk Manager; John Cook, Assistant Chief Fire Officer Lincolnshire Fire and Rescue	Consideration of the emergency response arrangements for localised flooding.
Investigations undertaken under Section 19 of the Flood and Water Management Act 2010	Paul Brookes, Flood Risk Manager	This item provides the latest position of all the current investigations in the County under Section 19 of the Flood and Water Management Act 2010

29 MAY 2018 – 10:00am		
Item	Contributor	Purpose
Environment Agency Update	Environment Agency	Updates to Committee on Environmental Agency Activities, including progress on key schemes.
Review of the Lincolnshire Flood Risk and Water Management Partnership	David Hickman, Growth & Environment Commissioner	Workshop item into the work to review the Lincolnshire Flood Risk and Water Management Partnership.
Investigations undertaken under Section 19 of the Flood and Water Management Act 2010	Paul Brookes, Flood Risk Manager	This item provides the latest position of all the current investigations in the County under Section 19 of the Flood and Water Management Act 2010
Anglian Water Draft Water Resources Management Plan	David Hickman, Growth & Environment Commissioner	Further consideration of the Anglian Water Draft Water Resources Management Plan.

17 SEPTEMBER 2018 – 10:00am		
Item	Contributor	Purpose
Investigations undertaken under Section 19 of the Flood and Water Management Act 2010	Paul Brookes, Flood Risk Manager	This item provides the latest position of all the current investigations in the County under Section 19 of the Flood and Water Management Act 2010
Humber Estuary Strategy Review Consultation	Environment Agency	Potential consultation into the review of the management of flood risk impact to Lincolnshire from the Humber Estuary.

26 NOVEMBER 2018 – 10:00am		
Item	Contributor	Purpose
Investigations undertaken under Section 19 of the Flood and Water Management Act 2010	Paul Brookes, Flood Risk Manager	This item provides the latest position of all the current investigations in the County under Section 19 of the Flood and Water Management Act 2010

Items to be programmed

- River Maintenance Transfer (De-maining) pilots - Black Sluice IDB
- Environment Agency visit to the Boston Barrier Site Works

For more information about the work of the Flood and Water Management Scrutiny Committee please contact Daniel Steel, Scrutiny Officer on 01522 552102 or by e-mail at daniel.steel@lincolnshire.gov.uk