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7 September 2018

Flood and Water Management Scrutiny Committee

A meeting of the Flood and Water Management Scrutiny Committee will be held on **Monday, 17 September 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 that reads "Keith Ireland".

Keith Ireland
Chief Executive

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

Councillors B Adams (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), P Vaughan (City of Lincoln Council), Mrs F M Martin MBE (East Lindsey District 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, 17 SEPTEMBER 2018

Item	Title	Pages
1	Apologies for Absence/Replacement Members	
2	Declarations of Councillors Interests	
3	Minutes of the Flood and Water Management Scrutiny Committee held on 29 May 2018	5 - 16
4	Announcements by the Chairman, Executive Councillors and Lead Officers	
5	Environment Agency Update <i>(To receive a report from Deborah Campbell (Environment Agency) which invites the Committee to consider and comment on the activities of the Environment Agency including progress of key capital schemes)</i>	17 - 24
6	Saltfleet to Gibraltar Point Strategy Update <i>(A verbal report by Claire Rose, Environment Agency, in connection with an update of this Strategy)</i>	25 - 32
7	Reviewing the Joint Lincolnshire Flood Risk and Drainage Management Strategy <i>(A report by David Hickman, Growth and Environment Commissioner, on the progress of the review of this Strategy)</i>	33 - 78
8	Humber Strategy Comprehensive Review <i>(To receive a report from Helen Todd, Environment Agency and Lucy Marshall, Humber Planning Specialist, which provides an update on the Humber Strategy)</i>	79 - 96
9	To Report Progress on the Investigations made in the County under Section 19 of the Flood and Water Management Act 2010 <i>(To receive a report from Warren Peppard, Flood Risk and Development Manager, on 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>	97 - 108

**10 Flood and Water Management Scrutiny Committee Work
Programme**

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(To receive a report from Daniel Steel, Scrutiny Officer, which 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
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FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE 29 MAY 2018

PRESENT: COUNCILLOR B ADAMS (CHAIRMAN)

Councillors P A Skinner (Vice-Chairman), W J Aron, T R Ashton, C R Oxby, C E Reid, R A Renshaw, C J T H Brewis and L Wootten.

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).

Councillors C J Davie and E J Poll, Executive Councillor Commercial and Environmental Management attended the meeting as observers.

Officers in attendance:-

Deborah Campbell (Environment Agency), Katrina Cope (Senior Democratic Services Officer), David Hickman (Growth & Environment Commissioner), Warren Peppard (Flood Risk & Development Manager) and Daniel Steel (Scrutiny Officer).

27 APOLOGIES FOR ABSENCE/REPLACEMENT MEMBERS

Apologies for absence were received from Councillors Mrs A M Austin, Mrs W Bowkett, B M Dobson, and Mrs C J Lawton.

It was noted that the Chief Executive, having received notice under Regulation 13 of the Local Government (Committee and Political Groups) Regulations 1990, had appointed Councillors L Wootten and C J T H Brewis to replace Councillors B M Dobson and Mrs A M Austin respectively, for this meeting only.

28 DECLARATIONS OF COUNCILLORS' INTERESTS

It was noted that some members of the Committee were members of Internal Drainage Boards across the County.

29 MINUTES OF THE MEETING OF THE FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE HELD ON 26 FEBRUARY 2018

RESOLVED

That the minutes of the Flood and Drainage Management Scrutiny Committee held on 26 February 2018, be agreed and signed by the Chairman as a correct record.

**FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE
29 MAY 2018****30 ANNOUNCEMENTS BY THE CHAIRMAN, EXECUTIVE COUNCILLORS
AND LEAD OFFICERS**

The Chairman invited Executive Councillors and Lead Officers to provide the Committee with any announcements.

Councillor C Davie, Executive Councillor for Economy and Place advised the Committee of the following:-

- Flood Prevention Scheme at Middle Rasen – It was reported that the Flood Prevention Scheme would be getting underway as residents in Middle Rasen had experienced flooding on three occasions in the last ten years, particularly the Gainsborough Road area of the village where 11 properties had been flooded internally. The Committee was advised that the scheme would help reduce the risk of flooding and protect 51 homes. The estimated overall cost of the scheme was £600,000, to be jointly funded by Lincolnshire County Council, Anglian Water and the Environment Agency;
- Waterways Strategy – It was noted that Lincolnshire County Council was continuing to work with partners to unlock the visitor and economic benefits around the County's waterways; also taking advantage of strategic opportunities to join up with emerging thinking concerning the potential benefits arising from flood risk management and water resource planning; and
- National Flood & Coastal Erosion Risk Management Strategy – It was highlighted that the council was fully engaged with the Department for Environment Food and Rural Affairs (DEFRA) and the Environment Agency in the early stages of developing a new national Flood & Coastal Erosion Risk Management Strategy. It was highlighted further that there was a recognition of the need to accommodate local priorities and the extent to which effective water management could support delivery of a wide range of benefits, for example to facilitate growth through prioritised flood risk management. The Committee noted that discussions moving forward would make sure that a full range of local community, business and environmental priorities could be embedded within the emerging national approach to managing water.

**31 ANGLIAN WATER'S CONSULTATION DRAFT WATER RESOURCES
MANAGEMENT PLAN**

Consideration was given to a report from David Hickman, Growth and Environment Commissioner, which provided the Committee with some key points proposed for Lincolnshire County Council and its partners' response to the Water Resources Management Plan (WRMP) consultation.

A copy of the proposed Lincolnshire response document was circulated at the meeting. The Committee was invited to consider the response and comment on the proposal. It was highlighted that the response had to be made by 1 June 2018; and members of the Committee were also urged to make a response through their respective district councils.

FLOOD AND WATER MANAGEMENT SCRUTINY COMMITTEE
29 MAY 2018

In a short introduction, the Growth and Environment Commissioner made reference to key elements that had been identified in developing a joint response between partners, details of which were shown on pages 13 and 14 of the report. Also, attached at Appendix A was a copy of the executive summary of the Water Resource Management Plan for 2019 for the Committee's consideration.

During discussion of the draft proposals circulated at the meeting, the following comments were raised.

- The need to include in the response any other emerging strategies;
- That the introduction of smart meters should be accompanied by a public awareness campaign. Also, officers agreed to look into the issue raised with regard the procedures taken in relation to leaks when a meter had been installed;
- The need to stress the engagement of all stakeholders at a local level regarding the infrastructure to ensure future water availability;
- The need for investment to accommodate climate change impacts at an early stage to mitigate any problems coming forward and to also reduce the impact on the bill payer;
- Ensuring that future housing development included a water plan and water disposal plan. The need for more to be done regarding rain water harvesting, particularly with new housing developments. It was highlighted that Lincolnshire County Council was working hard with regard to grey water and rain water harvesting. It was reported that currently there was flexibility for developers, if it could be shown that the introduction of these initiatives would make a development financially unviable. It was highlighted that to enforce the harvesting of rain water; and the use of grey water, there would need to be changes made to Building Regulations;
- One member highlighted that electricity supply was also a pinch point effecting economic growth within the County. The Committee was advised that the Greater Lincolnshire Local Enterprise Partnership was conducting a study regarding electricity supply;
- A question was asked as to whether the costs associated with future proofing had been checked. The Executive Councillor for Economy and Place confirmed that the figures had been discussed at the customer engagement forum; and had been the subject of robust challenge; and
- Proposed Water Storage facilities in the south west of the county. The Committee was advised that there were no specifics at this time and that a number of ideas were being developed with regard to water security. It was noted that there were no definitive plans for the storage of water at this moment in time. It was agreed that whatever plans were being developed should involve close engagement with local partners to ensure that any proposals benefitted Lincolnshire as much as possible.

The Committee was invited to comment on the Lincolnshire response to the Consultation Draft Water Resource Management Plan (This document was circulated at the meeting; details of which are shown below)

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"Lincolnshire response to Consultation Draft Water Resource Management Plan (due 1 June 2018)

Lincolnshire County Council, the Greater Lincolnshire Local Enterprise Partnership and our partners welcome the opportunity to engage with the development of Anglian Water's Water Resources Management Plan 2019. We recognise, and fully support, the need to plan strategically and proactively for future water resource management. This approach is entirely consistent with our established joint strategy for flood risk and water management, and with the aims of the GLLEP to ensure that effective flood risk and water management supports and promotes growth throughout the area, as set out in its Water Management Plan.

1 Growth is a key challenge our WRMP sets out to meet. We have used the latest local authority growth targets to develop our strategy, ensuring there will be enough water to meeting these targets. We have taken this approach because housing growth is regularly cited as a top priority for national and local Government. Of course, targets do not always turn into achieved growth and, currently, local growth targets are not quite being met.

Given this, do you agree with our approach of planning to meet local authority growth targets, or should we switch to an approach of using trend-based projections?

It is essential that planning for future water resource requirements is undertaken in close consultation with Local Planning Authorities and with county councils where there are two-tier local government structures. It is also important that growth aspirations set out in Strategic Economic Plans are considered alongside formal growth targets in local planning policy. Ideally, and recognising the need for a consistent and rigorous evidence base, it would be preferable to take a flexible approach that fully engages in local growth aspirations rather than determining a single fixed approach that is applied across the board. It is especially important that water resource planning is able to take account of changing circumstances and emerging opportunities for promoting growth that may be more nuanced than previously set growth targets or broader trend-based projections.

The Committee agreed to the draft response prepared in relation to question 1.

2 We are proud of the ambitious, cost beneficial demand management strategy that we have developed in the WRMP and are confident that this will more than offset the effects of growth in the region. Using the very latest technology and innovation, our strategy will unlock estimated water savings of around 43million litres a day by 2025, and 123million litres a day 2045. This strategy relies on more than just technology though – it requires collaboration with our customers, stakeholders and businesses to help bring down water demand.

Do you agree with this approach? Are we right to prioritise demand management?

We fully support this approach. Technological solutions to demand management are important elements in developing a more sustainable water resource infrastructure

for the future. Equally, helping to develop attitudes towards water use that complement these solutions is a key part of a strategic approach to managing demand for water in the long run. We consider demand management to be an essential part of a wider suite of approaches that is appropriate for the immediate five year period of the draft WRMP, however it is unlikely to remove the longer term need for planning for significant infrastructure improvements in line with local and national growth needs and should be considered alongside these.

The Committee agreed to the draft response prepared in relation to question 2.

3 Studies show that the public are more in favour of the introduction of compulsory water meters than ever before. We believe that this higher level of support reflects the fact that we now have a much larger proportion of customers paying using a meter compared to those who do not. We know there is still little support from customers who still pay unmeasured charges and so we have decided against the inclusion of compulsory metering in our WRMP.

Do you agree with this approach or think that we should consider compulsory metering in our upcoming business plan (2020-25)?

The voluntary introduction of metering is a good example of a mitigating solution that is best achieved by working with customers as mentioned in the previous question. Compulsory introduction risks bypassing the development of a broad understanding and acceptance of the need to manage demand, and risks engendering a greater level of resistance than might be the case if it were applied in line with public acceptance and support. In addition, it is possible that a rapid introduction could reduce the capacity of people to adopt satisfactory lower water behaviours in time, and lead to some facing significant increases in their bills without being able to adapt in advance. A consensual, voluntary approach would appear to offer the best opportunity in the long term to promote water-saving behaviours alongside the introduction of technical solutions that could take advantage of them.

The Committee agreed to the draft response prepared in relation to question 3.

4 We have used Adaptive Planning to identify opportunities to ‘future proof’ our Plan against potential environmental regulations by increasing option capacity. The cost of this future proofing is £88 million, which equates to a cost increase of around £1.70 per year on average customer bills by 2025.

Should we include this additional investment to future proof our plans?

Effective demand management and future infrastructure planning is unlikely to fully succeed without also considering potential environmental impacts and associated regulation. While it is difficult to predict the course of future environmental regulation following the UK's exit from the European Union, it is reasonable to assume that a strong regulatory framework will remain in place and will need to be accommodated. For this reason, it seems preferable to include a realistic provision for remaining abreast of – and helping to influence - regulation, rather than incurring potentially greater costs in the future by reacting to it retrospectively.

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The Committee agreed to the draft response prepared in relation to question 4.

5 Our Plan is designed to increase our resilience to drought, so that no customers are exposed to the risks of rota-cuts and standpipes in a severe drought event. The investment required to increase resilience to drought is, we believe, relatively modest and equates to approximately £2.20 per year on the average household bill by 2025 (assuming the other factors that influence bills remain unchanged).

Do you support this approach?

We would make similar comments to those above. It is good risk management to forward plan and identify appropriate resources to increase the resilience of the public supply, particularly in view of the existing projections for water availability in the east of England. Therefore, we would support this approach, especially with regard to maintaining access to water for those households most likely to be challenged by access to affordable utilities.

The Committee agreed to the draft response prepared in relation to question 5.

6 Climate change is one of the key strategic risks our business faces. As a result, we have decided to adopt the Environment Agency's 2017 method for calculating climate change impacts, which results in a large impact in 2024-25.

It would, however, be possible to defer these impacts, and the associated investments, until 2029-30. Doing so would remove approximately £300million from the investment programme between 2020-25, a bill impact of around £6.10 per year on average customer bills by 2025.

Should we defer this investment until 2029-30?

Further to our comments made above, while it is desirable to keep bills as low as practicably possible, it would seem preferable to spread the investment in climate change resilience over a longer period to avoid a much larger requirement for adaptation later on. The risk of deferring such investment is that a relatively short term benefit in bill levels could be counterbalanced by significantly greater increases to manage the accumulated impacts of climate change by 2029, with consequently higher impacts on households and businesses at that point.

The Committee agreed to the draft response prepared in relation to question 6.

Planning for the future

Effective water management is essential to economic and housing growth, and therefore for sustaining and growing Lincolnshire's economy. Key sectors in this regard are represented by food production and processing, as well as the visitor economy and the supply chain that supports it. This is also true for our neighbouring areas in eastern England. Careful planning for the water resources that will be needed to sustain and develop these sectors into the future is essential for the area's economy and also to continue to grow the contribution that they make to the national economy and the UK's capacity for growth.

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For these reasons we would wish to be fully engaged with our key stakeholders in all stages of decision-making about the nature, scale, scope and location of long-term solutions and any interim steps that may be required in preparation for them. In particular, we would wish to support a strategic approach to water management infrastructure in the longer term by playing a leading role in developing proposals through the WRE initiative that may be located in Lincolnshire or could offer significant benefits to the area.

We would strongly welcome close engagement to ensure that infrastructure systems that might be located within Lincolnshire provide the greatest possible clearly identified and costed additional benefits for Lincolnshire in terms of flood risk, economic uplift, development opportunities and water management. As such, we would also be very interested in helping to outline key requirements for determining locations of future infrastructure.

These are likely to involve ensuring that major initiatives arising from long term strategic planning should be capable of linking with and supporting existing programmes, such as the Joint Lincolnshire Flood Risk and Water Management Strategy, the GLLEP's Strategic Economic Plan, Local Industrial Strategy and Water Management Plan, and the Lincolnshire Waterways Strategy."

In conclusion, members the Committee were urged to ensure that district council's responded to the consultation.

RESOLVED

That the Flood and Water Management Scrutiny Committee agreed to the proposed draft response to the Consultation Draft Water Resource Management Plan as mentioned above, subject to the inclusion of the comments raised at the meeting.

32 REVIEW OF THE LINCOLNSHIRE FLOOD RISK AND WATER MANAGEMENT PARTNERSHIP

Consideration was given to a report from David Hickman, Growth and Environment Commissioner, which advised the Committee of recent developments in the Lincolnshire Flood Risk and Water Management Partnership; and invited comments on possible priority areas for development as part of the forthcoming review of the Lincolnshire Flood Risk and Water Management Strategy.

Appendix A to the report provided the Committee with details of the draft terms of reference for the Lincolnshire Flood Risk and Water Management Partnership.

The report highlighted that since 2012 flood risk management had increasingly been recognised as an integral part of a wider issue of managing water as a resource that was essential for economic growth nationally, particularly, in the east of England. Page two of the report provided a list of significant areas identified as needing updating.

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It was highlighted that the first strategy was agreed in December 2012, and that since then flood risk and drainage management had increasingly come to be seen as a significant component in achieving a wider range of strategic objectives, particularly with regard to economic growth and infrastructure planning. It was noted that the establishment of Local Enterprise Partnerships, responsible for Strategic Economic Plans had particular relevance in Lincolnshire because of the importance of sustainable water supply and resilience to major sectors of the County's economy, with particular reference being made to agri-food and the visitor economy.

The Committee was advised that the review would look at parts one and two of the existing Joint Lincolnshire Flood Risk and Drainage Management Strategy. The review would look at all relevant areas that needed to be introduced into the strategy, as well as any material that was no longer required. The report provided a list of strategies and initiatives that had been developed since 2012, which would need to be taken into account.

It was reported that early discussions with partner organisations had suggested a number of themes that might be expected to feature in a revised strategy. These were:-

- Developing the linkages between water management and securing economic growth and environmental enhancement;
- Effective linkages with major regional and national strategic infrastructure initiatives, particularly involving water resources;
- Develop new, forward-looking suite of measures & indicators through development of second edition of the strategy;
- Develop public & stakeholder communications & engagement strategy; and
- Maintain awareness of partnership nationally, proactive engagement regionally and nationally in key policy developments.

The Committee was invited to comment on the broad themes as detailed above. During discussion, the Committee raised the following points:-

- Confirmation was given that the Environment Agency was keen to see the Strategy come forward; especially its dovetailing into wider issues;
- The need to ensure that all Internal Drainage Boards were consulted, as they had a wealth of local knowledge. It was also highlighted that information relating to IDBs would help also with the Environment Agency with their capital programme refresh;
- The success of joint working relationships within Lincolnshire and the need to build on these further;
- One member also highlighted the issue of ensuring that there was food security going forward;
- One member highlighted a flooding issue within their division concerning run off from a reservoir. Officers advised that the matter should be initially referred to the local highways manager;
- The implication of Special Levies for Internal Drainage Boards on District Councils; and the sustainability of this arrangement going forward. The

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Committee was advised that the Local Government Association had set up a special interest group to look at the issue; which had arisen following re-organisation in the 1970s. The Committee agreed that it was not local authority spend. It was also highlighted that officers would be providing information to the LGA concerning the IDB issues in Lincolnshire; and

- The impact of increased council tax on the tax payer. A suggestion was made for each partner to put in a sum of money to help fund any flooding events.

RESOLVED

That the proposed changes to the Lincolnshire Flood and Water Management Partnership; and the possible priority areas for development of the forthcoming review be received.

33 ENVIRONMENT AGENCY UPDATE

The Committee gave consideration to a report from the Environment Agency, which provided the Committee with an update on the progress made on key capital schemes.

Deborah Campbell, Coastal Manager, Environment Agency provided the Committee with further updates in relation to the following projects:-

- Boston Barrier – The Committee was advised that the scheme was underway; and members of the Committee were encouraged to have a look of the £100m flagship scheme. It was highlighted that lots of information had been posted on social media. It was highlighted further that the scheme was on programme; and on budget;
- Saltfleet to Gibraltar Point Strategy Review – The Committee was advised that the consultation period had finished on 22 March 2018. The feedback had been evaluated and work was ongoing in preparation of the SGP Strategy with the SEA for formal consultation later in the year and that a further update would be received later in the year;
- Lincshore (Interim Beach Management Lincolnshire Coast) – The Committee was advised that the dredger had been on the coast over the last few weeks; working over two bank holidays. It was highlighted that the dredger would be there until 22 June 2018;
- Horncastle and Louth Improvements – The Committee was advised that both reservoirs had been in use over the Easter period; and that it had been great to see them in action. It was highlighted that positive comments had been received. The Committee was advised that it was the intention to remove both of these schemes from future reports going forward;
- Black Sluice Catchment Works – The Committee noted that the Rationalising the Main River Network pilot project had completed the formal consultation phase for the South Forty Catchment. It was noted further that the responses received had been lower than expected; but had been mainly positive for the local pilot (20 kilometres of network being transferred to Black Sluice Internal Drainage Board). It was noted further that the project was due to be completed in the summer of 2018;

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- Lincoln Defences – It was reported that this scheme had been accelerated. The Committee was advised that the strategic outline business case had been submitted. It was highlighted that initial assessment of costs and benefits had highlighted a likely need for around £2.3m of additional partnership funding;
- Humber Flood Risk Management Strategy – The Committee was advised that the Humber Flood Risk Management Strategy set out how the Environment Agency and its partners would seek to manage flood risk around the estuary over the next 100 years. It was highlighted that a comprehensive review of the document had commenced in 2014, with a view to the document being signed off in 2020. The report advised that the review boundary had been extended to include all tidal flood risk below the seven metre contour line. Once the short list of options had been finalised, the Committee could expect to receive a further update; and
- Donna Nook Managed Realignment Site – It was hoped that the outcome would be known around the 27/28 June 2018.

RESOLVED

That the Environment Agency Update be received.

**34 TO REPORT PROGRESS ON THE INVESTIGATIONS MADE IN THE
COUNTY UNDER SECTION 19 OF THE FLOOD AND WATER
MANAGEMENT ACT 2010 (FWMA)**

Consideration was given to a report from Paul Brookes, County Flood Risk Manager, which invited the Committee to consider and comment on the investigations undertaken in the County under Section 19 of the Flood and Water Management Act 2010.

Warren Peppard, Flood Risk & Development Manager advised the Committee that in Quarter 4 (January to March 2018), there had only been one new Section 19 investigation started. The investigation related to chronic groundwater flooding of a single residence in Sibsey. It was noted that for the same period last year, no flood events had been reported.

Appendix A to the report presented provided the Committee with a record of current flood investigations in the County, that were being carried out in accordance with Section 19 of the Flood and Water Management Act 2010.

RESOLVED

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

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

The Committee gave consideration to a report from Daniel Steel, Scrutiny Officer, which enabled the members to consider and comment on the content of its work

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programme for the coming year to ensure that scrutiny activity was focussed on areas of greatest benefit.

Pages 53/54 of the report provided the Committee with a copy of the work programme for the Flood and Water Management Scrutiny Committee up to 11 February 2018.

One member requested a further update in six months' time relating to the Special Levies for Internal Drainage Board's.

RESOLVED

That the Flood and Water Management Scrutiny Committee Work Programme, as presented, be agreed subject to the inclusion of the item mentioned above.

The meeting closed at 11.20 am

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Agenda Item 5



Policy and Scrutiny

Open Report on behalf of Environment Agency

Report to:	Flood and Water Management Scrutiny Committee
Date:	17 September 2018
Subject:	Environment Agency Update

Summary:

To update 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:

Scheme Name	Promoter
• 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:	£105,109,685

Update since last meeting

Construction has now started in earnest and there will be a steady increase in activities over coming months.

Over 5,000 cubic metres of silt has been dredged to make way for piling on the left bank on the Port Quay wall. This activity was essential to support the existing wall, but also allowed for the development of noise mitigation measures for the South side work. The trials allowed our contractors at BMM JV to design a temporary 5m high noise barrier for best practice mitigation when piling the new river wall which began in late May.

Demolition work has taken place on the left bank to allow us to construct the temporary quay and moorings for the relocation of the local Boston District Fishing Association (BDFA). This will minimise impact on their day-to-day operations once the Barrier cofferdam is in place.

Work activities for the remainder of 2018 include:

- Demolition of existing “oil” jetty structure on right-bank
- Construct right bank embankments
- Construct barrier control room
- Construct quayside and relocation of fishing fleet to quayside
- Fabrication of barrier gate offsite and manufacture hydraulic rams
- Secondary dredging starts October 2018

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

Through partnership working with Lincolnshire County Council, this project has secured £1M of European funding. To ensure we deliver this project within the European timeframe we are aligning with the Boston Barrier project programme to utilise a more efficient delivery route through a design and build contract.

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

A verbal update on the strategy review, benefits apportionment across different risk management authority projects and forthcoming consultation will be given at the scrutiny meeting.

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

This year's campaign was completed in June with a total sand nourishment volume of 400,000m³ placed along the Mablethorpe to Ingoldmells frontage.

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 and the reservoir operational, having been used successfully over the Easter 2018 period.

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 and the reservoirs operational, having been used successfully over the Easter 2018 period.

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" (PACM) 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 PACM pilot has completed its initial assessment of the catchment and identified future flood risk options for the catchment as a whole.

The current preferred flood risk management option is to ensure the maintenance and condition of the raised defences which includes toe protection works on the Wainfleet Relief Channel and the Steeping River together with exploring upstream options to reduce flood risk and siltation.

The first phase of a two year programme of toe erosion protection has been completed, consisting of a 950m length of the Wainfleet Relief Channel and a 250m length on the Steeping.

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

Updates 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).

Officers from both organisations are continuing to try and resolve outstanding funding issues. The Environment Agency have agreed to continue to maintain (tough not operate) the pumping station until March 2020 whilst we continue to work with partners.

The next step is to engage with key external stakeholders on understanding options for the structure, including what decommission would look like if asset transfer were not possible.

➤ Rationalising the Main River Network (RMRN) Project

The RMRN de-maining pilot project has completed the formal consultation phase for the South Forty Foot Catchment. Responses returned were lower than expected, though for the local pilot mostly positive.

A formal response document has been written and is available on gov.uk

The next phase is formal public notices issued during the autumn. If there are no formal objections the watercourses will be transferred to Black Sluice IDB.

➤ **Bank Armouring**

Bank armouring has been carried out on part of the fenland section of the Swaton Eau.

Modelling will be 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 Fossdyke 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

The Strategic Outline Business case has been approved allowing the project to move forward.

The initial assessment of costs and benefits have highlighted a likely need for around £2.4million of additional partnership funding. It is envisaged this will reduce as the preferred option of works is confirmed.

A funding plan has been developed, and engagement with potential contributors will begin shortly, as we get more confidence in the overall costs.

The first phase of works are currently planned to start spring 2019 subject to funding.

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.

Mott McDonald have been commissioned, through the Programme Delivery Unit, to prepare the full business case preparation is ongoing.

The commission is in two phases, the first will focus on the engagement of farmers and land owners to identify suitable sites for NFM measures to be implemented. The second phase will include the economic appraisal of the NFM options, outline designs and completion of the business case which will be submitted to the Large Projects Review Group.

It is likely the first works on site will take place during the winter of 2018/19.

2. Updates on Other Items

2.1 Comprehensive Review of the Humber Flood Risk Management Strategy

A verbal update on the Humber Flood Risk management Strategy will be given at the scrutiny meeting.

2.2 Donna Nook Managed Realignment Site

The Environment Agency has applied to the Department of Transport to secure the diversion and stopping up of the footpath on to the realigned path. The draft Order was heard at a public inquiry in June 2018.

The Inspector, appointed by the Planning Inspectorate, will make his recommendation to the Secretary of State for Transport who make the final decision.

The Environment Agency will ensure all preparatory work is complete ahead of the final decision so that works can commence at the earliest opportunity, allowing for considerations such as six weeks of High Court challenge and overwintering bird restrictions if permissions are granted.

3. Consultation

a) Have Risks and Impact Analysis been carried out?

No

b) Risks and Impact Analysis

N/A

4. 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

Agenda Item 6



Overview

- Funding (FCERM GiA)
- Different sources of flooding
- Funding and benefits apportionment – SGP example
- Advantages of taking a strategic approach

2



Funding (FCERM GiA)

- Every project or strategy needs to identify the sources of funding and the amount it will get.
 - Part of the business case
- The amount of GiA funding relates to the benefits that the project will bring (damage avoided).
- If GiA does not cover all costs extra money will need to be sought through **partnership funding** contributions.

3



Funding (FCERM GiA)

- GiA is calculated through use of the **partnership funding calculator**, which considers:

Benefits

- Homes better protected.
- Homes in deprived areas.
- Economic benefits
- Wildlife benefits

Costs

- Houses protected is very important as the payment rates (for damage avoided) are higher than for economic benefits.

4



Different Sources of Flooding

- Some houses are at risk from more than 1 source of flooding.
 - E.g. on the East Coast – tidal, fluvial and surface water (managed by different RMAs)
- Houses and benefits cannot be double counted between separate projects to address these risks.
- We work closely with other risk management authorities to accommodate their investment needs
 - Lead Local Flood Authorities
 - District Councils
 - Water Companies
 - Drainage Boards

5



Different Sources of Flooding

How do we address the double counting issue?

Some options available:

- Combining the investments into 1 project to address multiple flooding sources.
- Developing an approach to **benefits apportionment**.
 - E.g. Saltfleet to Gibraltar Point Strategy

6



Funding and Benefits Apportionment

SGP Example

- Overlapping sources of flooding:
 - Tidal, Surface water, Fluvial
- We are unable to double count the benefits i.e. if houses are used for a tidal defence project they cannot then be used to support a fluvial project.
- Developing a high level strategic approach to sharing the benefits in the strategy area between the different RMAs, to support their individual projects.
- The plan will provide a strategic approach but it is important for each individual project to demonstrate that it is viable and an appropriate use of grant in aid funding.

7



Some Principles

Any approach to apportioning the benefits of FCRM projects should:

- be agreed by all RMAs involved, as it will affect their opportunities to apply for FCERM Grant in Aid, and help their collective efforts to raise any additional funding
- ensure that individual works in an area can make a fair FCERM Grant in Aid claim commensurate with the impact of the works, with no or minimal impacts on works elsewhere

8



Our Approach

- Worked with all of the RMAs in the strategy area to understand
 - the flood risk in their area
 - their objectives for managing these
 - their future programme of works
- Established agreement that there is little value in maintaining sea defences without inland flood risk or water level management and vice versa.



What are the Benefits?

Some definitions:

- **OM1** – Economic benefits

These include avoidance of damages to e.g. business, agriculture, local government, communications, infrastructure, utilities and public health

- **OM2** – Households moved from one category of flood risk to another

Must have been built prior to January 2012, different payments rates for deprived areas

Average Annual Avoided Damages (AAAD) – damages avoided (benefits) per year from the implementation of chosen measures



Our Approach

Guidance: Where it is not possible to readily separate areas affected by different sources or responsibilities for flood risk, then separate economic assessments of the effects of flooding from each source can be carried out. This can be done with the **benefits** and outcomes of proposed works **apportioned to the different sources** or Risk Management Authorities using the **ratio of annual average avoided damage** from one source, to the rest. This approach is useful in areas of widespread multi-source flooding.

11



Our Approach

- Sources of flooding have been divided into:
 - **Coastal** – combination of extreme tides and waves above land level
 - **Rainfall** – directly on the area at risk and conveyed from higher land exceeding the capacity of receiving systems. (incorporates fluvial and surface water – LMDB, LCC, ELDC, EA, AW)
- Whilst they can occur simultaneously their probabilities are essentially independent and therefore have different estimates of annual average damages.

12



An Example

Figures are representative and subject to change

Source	AAAD	Ratio	Economic Benefit per project (OM1)	Houses (OM2s)
Tidal	£137m	59%	£635m (5 year duration)	7,013
Rainfall	£97m	41%	£1,881m (30 year duration)	4,874
	£234m	100%		11,887

This includes Lincolnshire County Council, East Lindsey DC, Anglian Water, Lindsey Marsh Drainage Board

High level figures only, does not take account of overlapping projects

The diagram illustrates the breakdown of the AAAD (Annual Allowance for Adverse Drift) into two main sources: Tidal and Rainfall. A green oval encircles the Rainfall category, with a green arrow pointing upwards from it to the total AAAD value of £234m. Another green arrow points upwards from the Rainfall value of £97m to the total AAAD value. A red arrow points upwards from the total AAAD value of £234m to the total economic benefit of £1,881m. The total economic benefit is further broken down into its components: £635m for Tidal (5 year duration) and £1,246m for Rainfall (30 year duration). The total economic benefit is also converted into the number of houses affected, which is 11,887.

13



What Next?

- Further development of the Benefits Apportionment Plan.
- Sign-off from each RMA.
- Submission alongside the Strategy in early 2019 for approval.
- Plan to be kept in review after implementation to ensure it still meets the needs of the RMAs.
- Individual projects to refer to the apportionment in the plan whilst developing their business case and assessing the benefits available to secure funding.

14



Advantages of Taking a Strategic Approach

- An agreement between all RMAs.
- Apportioned on the assessment of the risk to ensure fairness.
- Avoids double counting and ensures all can follow the rules.
- Provides all RMAs with clarity when developing projects.
- High level testing shows that the proposed apportionment is compatible with RMA projects.
- Principles of this approach will help elsewhere.

15



Any Questions?

- Has this helped answer your questions on how funding works?
- Would you like us to come back to cover anything further?

16



Agenda Item 7



Policy and Scrutiny

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

Report to:	Flood and Water Management Scrutiny Committee
Date:	17 September 2018
Subject:	Reviewing the Joint Lincolnshire Flood Risk and Drainage Management Strategy

Summary:

This item updates Members on progress in developing strategic priorities for the revision of the Joint Lincolnshire Flood Risk and Drainage Management Strategy, and seeks Members' views on a range of areas that could form priorities within the next version of the Strategy.

Actions Required:

To consider and provide guidance on possible priority areas for development as part of the forthcoming review of the Joint Lincolnshire Flood Risk and Drainage Management Strategy.

1. Background

Reviewing the Joint Lincolnshire Flood Risk and Drainage Management Strategy

Lincolnshire County Council is the Lead Local Flood Authority (LLFA) for the administrative county of Lincolnshire. Under the Floods and Water Management Act 2010 the County Council, as LLFA is required to implement and monitor a Local Flood Risk Management Strategy consistent with the National Flood and Coastal Erosion Risk Management (FCERM) Strategy the Environment Agency have produced but responding to local needs and circumstances. The Act gives the LLFA powers to carry out works to manage the risk of flooding from surface water, ground water and ordinary watercourses.

The purpose of the Strategy is to increase the safety of people across Lincolnshire by reducing the number of people at risk of flooding, increasing the resilience of local communities and reducing the impact of flooding. As a minimum, it must specify the following;

- The risk management authorities in the LLFA's area

- The flood risk and coastal erosion functions that may be exercised by those authorities relating to the area
- Objectives for managing flood risk in the area, including any objectives prepared under the Flood Risk Regulations 2009
- Measures proposed to meet those objectives
- How and when the measures are to be implemented
- Costs and benefits of the measures and how they are to be paid for
- Assessment of local flood risk (meaning from surface runoff, groundwater and ordinary watercourses)
- How and when the strategy is to be reviewed
- How the strategy contributes to the achievement of wider environmental objectives

In developing the Strategy, the LLFA is required to consult risk management authorities that may be affected by the strategy and the public. The Strategy must be consistent with the National Flood Risk and Coastal Erosion Management Strategy (of which a national review has commenced in May), and the LLFA must publish a summary of the Strategy, including guidance about the availability of relevant information.

The Context in Lincolnshire

The Joint Lincolnshire Flood Risk and Drainage Management Strategy was developed through public and stakeholder consultation during 2011 and 2012, and was approved by the County Council's Executive on 4 December 2012. Part 3 of the Strategy, the action plan, was made available from April 2013 and is updated annually. As a consequence Lincolnshire was one the first areas to develop a Local Flood Risk Management Strategy, and was forward looking in implementing a strategy that sought to co-ordinate the work of all Risk Management Authorities within the LLFA area.

In effect, the Strategy co-ordinates all the work delivered by the Lincolnshire Flood Risk and Water Management Partnership as a whole, and was developed with the participation of all risk management authorities, along with the Lincolnshire Resilience Forum, the Regional Flood and Coastal Committee, and with the guidance of the Joint Flood Risk Scrutiny Committee.

This co-ordinated approach was embedded by establishing the Common Works Programme in 2013. This includes the major capital programmes of all partners, as well as the programme of joint activities that address solutions where responsibility is shared or where there is no clear single authority with the capacity or responsibility to act. The Common Works programme allows the partnership to prioritise works across the county according to need, and within the constraints imposed by availability of local and national funding.

The current Strategy consists of

- Part 1: Strategic Vision (including high level objectives)

- Part 2 (A & B): Implementation Plan for the Strategy
- Part 3: Common Works Programme (annually updated action plan)

It can be found in full on the LCC website at the following link:

<https://www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/implementing-management-strategy/103045.article>

Recent Developments

Since 2012 flood risk management has increasingly been recognised as an integral part of a wider issue of managing water as a resource that is essential to economic growth nationally and, particularly, in the east of England. The Greater Lincolnshire Local Enterprise Partnership has recognised the importance of managing water in this way through its Water Management Plan (2016), which incorporates key strategic flood risk management issues where they can directly support or influence the growth agenda. This has particular relevance in Lincolnshire because of the importance of sustainable water supply and resilience to major sectors of the county's economy, notably with regard to agri-food and the visitor economy.

A related development is the growing importance of water resource management since major droughts (interspersed with significant surface water flooding events) in 2012 and 2013. Flood risk is increasingly seen as part of a bigger picture that includes resilience to drought and planning for sufficient supplies of water where and when it is needed. This future planning for water availability has led to further consideration of potential opportunities for strategic linkage between water resource, flood risk, growth and environmental management, as reflected in the recent consultation of Anglian Waters draft Water Resources Management Plan. These are key elements in supporting economic growth across Lincolnshire, and of direct interest to key economic sectors in Lincolnshire and its neighbouring authorities.

This rapidly changing context prompted the Strategy Group of the partnership to undertake a review of the partnership's role and function, and subsequently update the existing strategy.

This broader integration of water related activities was explicitly recognised when the flood risk and drainage partnership was renamed the Lincolnshire Flood Risk and Water Management Partnership in 2015. The review of partnership during 2017-18 consolidated these developments and confirmed the need to embed a wider approach in its membership and terms of reference. The review of the partnership's Strategy now offers the opportunity to continue this process of alignment and co-ordination. It is suggested this should now be considered as the Joint Lincolnshire Flood Risk and Water Management Strategy to reflect the broader scope of our ambitions.

Scope and Timescale for the Review

This review will pertain to the contents of Parts 1 and 2 of the existing Joint Lincolnshire Flood Risk and Drainage Management Strategy. It will consist of a complete review, and will consider all relevant areas that need to be introduced into the Strategy, as well as any material that is no longer required.

As a minimum it is anticipated that the following strategies and initiatives developed since 2012 will need to be taken into account.

- Current review of National Flood Risk and Coastal Erosion Management Strategy
- Humber Estuary Strategy
- Current national review of Shoreline Management Plans
- Saltfleet to Gibraltar Point Strategy
- Wash Banks Strategy
- Partnership Approach to Catchment Management
- Flood Plan for Lincolnshire (Emergency Response)
- Water Resources Management Plan
- Water Resources East Initiative
- Local Planning Policy – Local Plans
- GLLEP Strategic Economic Plan
- GLLEP Water Management Plan
- National and Local Industrial Strategies
- Defra 25 Year Environment Plan

It is anticipated that a Strategic Environmental Assessment will be required, and this will need to be commissioned to run in parallel with development of the Strategy itself. Public consultation is also a statutory requirement for Local Flood Risk Management Strategies, and the timing of this will need to be managed to ensure that the Environmental Assessment Report can be released for consultation at the same time. It is anticipated that the final draft Strategy should be completed by April 2019 with a commencement of formal approval and launch of the new strategy to follow shortly after. At present the indicative timeline is as follows;

September 2018:	First draft new Strategy (outline only)
October 2018:	Partner and stakeholder consultation
Nov 2018 – Jan 2019:	Formal public consultation (second (consultation) draft)
Feb - Mar 2019:	Third draft of new Strategy Examination of Third Draft by partners & stakeholders
April 2019:	Commence formal approval and launch of new strategy

Core resource to manage the project will be provided by LCC's Growth and Environment Commissioning Group. It is anticipated that staff resources will be deployed from all members of the Partnership as required, with commitments to be agreed through the Partnership structure and in consultation with partner authorities. It is expected that resources will be drawn on at specific times during the development of the Strategy, particularly during partner and stakeholder engagement, and to assist with public consultation and engagement.

The review of the Strategy will be managed through existing flood risk and water management partnership structures, with scrutiny and oversight provided by the statutory Flood Risk Scrutiny Committee. In brief, the following roles are identified:

Decision-making:	Partner executive bodies
Scrutiny and Oversight:	Lincolnshire flood risk scrutiny committee
Steering Group:	Flood Risk & Water management Partnership Strategy Group: focused steering group to be convened from Strategy Group membership
Project Sponsor:	David Hickman
Project Manager:	Matthew Harrison

2. Conclusion

In May this year Members of the Committee supported officers in establishing the following broad areas as worthy of further consideration in the Strategy:

- Developing the linkages between water management and securing economic growth and environmental enhancement
- Effective linkages with major regional and national strategic infrastructure initiatives, particularly involving water resources
- Developing a new, forward-looking suite of measures & indicators through development of second edition of Strategy
- Developing public & stakeholder communications & engagement strategy
- Maintaining awareness of partnership nationally, proactive engagement regionally and nationally in key policy developments

Early discussions with partner organisations have suggested a number of ways in which these areas might be developed as strategic objectives. In particular these include

- A greater emphasis on managing water in catchments, both locally and at a strategic level

- Greater integration of flood risk and water management with local planning policy development
- Promotion of a mix of measures including water retention and attenuation, natural flood risk management
- Alignment and co-ordination of flood risk with water resource management – linking solutions flood risk with improved resilience to drought
- Clear objectives for supporting economic growth and development through effective water management
- Proactive support for national initiatives such as IDB boundary extension

Members are asked to consider these approaches, and continue to support officers with guidance and advice throughout the development of the revised Joint Lincolnshire Flood Risk and Water Management Strategy

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	Existing Joint Lincolnshire Flood Risk & Drainage Management Strategy - Strategic Vision

Appendix A	Existing Joint Lincolnshire Flood Risk & Drainage Management Strategy - Strategic Vision
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5. Background Papers

This report was written by Matthew Harrison, who can be contacted on 01522 555172 or matthew.harrison@lincolnshire.gov.uk.

Lincolnshire Flood Risk and Drainage Management Partnership Framework



Joint Lincolnshire Flood Risk and Drainage Management Strategy 2012-2025

Part 1 of 3

Strategic Vision

Introduction

In 2007 Lincolnshire, along with other parts of the UK, experienced unusually heavy rainfall. This led to serious flooding in numerous locations across the country, including in Lincolnshire. These events prompted the Government to commission a review of the way flooding is managed in England and Wales. The results of this review were published in a report in June 2008, called '[Learning Lessons from the 2007 Floods](#)'.

The report called for urgent and fundamental changes in the way we manage the risk of flooding. Its recommendations were [accepted in full](#) by the Government in 2008, and led to a new Act of Parliament, the [Flood and Water Management Act](#) (2010). Together with the [Flood Risk Regulations 2009](#), this establishes a new national approach to managing the risk of flooding.

The Lincolnshire Flood Risk and Drainage Management Partnership

Lincolnshire already possessed great expertise in managing drainage and many aspects of flood risk. Before the legislation was published, authorities responsible for managing flood risk and drainage in Lincolnshire agreed to form a partnership to work more closely together, and to make existing resources go further. In this way, although it will never be possible to prevent all flooding, Lincolnshire's flood risk management authorities aims to provide more local communities with improved protection from flood risk, while helping local people to be better prepared for flooding if it happens.

The partnership was formally established in April 2010. Its members are:

- Lincolnshire County Council
- The Environment Agency
- The 14 Internal Drainage Boards operating in Lincolnshire
- The 7 District Councils in Lincolnshire
- The two Water and Sewerage Companies operating in Lincolnshire
- Natural England
- The Regional Flood & Coastal Committee
- The Lincolnshire Resilience Forum (authorities responsible for planning for and responding to emergencies of all kinds)

A Joint Flood Risk and Drainage Management Strategy for Lincolnshire

Lincolnshire County Council, as the Lead Local Flood Authority for the county, is required by the new legislation to work with other Risk Management Authorities to develop, maintain, apply and monitor a Local Flood Risk Management Strategy, which must be consistent with the Environment Agency's national Flood and Coastal Erosion Risk Management.

In Lincolnshire we see this as an opportunity to continue improving the way we work together so that we can provide a shared vision for how flood risk and drainage should be managed in the future. The result is this Joint Lincolnshire Flood Risk and Drainage Management Strategy.

Our vision: how flood risk and drainage will be managed by 2025

The overall aim of the Lincolnshire Flood Risk and Drainage Management Partnership can be summed up very simply:

We will work with our communities to manage the likelihood and impact of flooding for the social, economic and environmental benefit of Lincolnshire. We will support local people and businesses to take part in managing the risks that affect them. Lincolnshire will continue to be a national exemplar for effective partnership working in flood risk and drainage management.

What will be in place when this vision is achieved?

The partnership will achieve a number of objectives to make this vision reality.

- 1 There will be a common works programme of measures to manage flood risk and drainage by 2013.
- 2 Existing resources will be used in the most efficient way possible. We will attract as much external funding as possible, and will secure new resources locally and nationally.
- 3 The likelihood and impact of flooding from all sources will be reduced where possible from current levels by 2025. This includes accounting for increases in the risk of flooding caused by climate change.
- 4 Emergency planning and response arrangements managed by the Lincolnshire Resilience Forum will form part of a single, co-ordinated approach to managing flood risk and drainage as a whole.
- 5 The Lincolnshire Flood Risk and Drainage Management Partnership will work with local communities to develop flood risk and drainage management services that meet local needs.
- 6 Local communities and businesses will be more aware of flood risk, and with the help of public authorities, will take steps to protect themselves through individual and community action.
- 7 Planning and development control across the county will take account of all forms of flood risk and sustainable drainage; development which could increase flood risk will be minimised, as will inappropriate development in areas of significant flood risk.
- 8 Flood risk and drainage management will be more accountable to the public through the local democratic process, and through more freely available information about flood risk and measures taken to control it.
- 9 Flood risk, drainage management and future development will contribute to better water quality, wider environmental benefits and sustainable growth.

How will these objectives be achieved?

In order to meet these long-term objectives, the partnership will need to achieve a range of more immediate measures. The most important of these are:

- Information about the way flood risk assets are managed will be more accessible from the end of 2012 through the online Lincolnshire flood risk asset register.
- Lincolnshire will have more information and better ways of assessing flood risk from all sources after 2013, which will guide sustainable development and improve the way that priorities for works, other measures and further investigation are decided.
- The Lincolnshire Common Works Programme will commence in 2013. It will be a three-year, published programme of joint works by all partner organisations across the county, continuously reviewed and updated.
- From 2013-14, public authorities will co-ordinate resources to increase efficiency, and increase the amount of funding available to be used for flood risk and drainage management.
- The partnership will work together towards sustainable growth in the county, influencing planning and development control policy, as well as individual development proposals.
- The County Council will be established as the sustainable drainage approving body during 2014, working with the local development industry, local planning authorities and water and sewerage companies.
- Partnership activities will be overseen by elected members on behalf of the public.
- A partnership communications and engagement strategy will be established in 2013 to ensure open, honest and consistent dialogue is maintained with communities and businesses.
- We will work with the insurance industry to improve their understanding of flood risk and to provide local people with an improved picture of local flood risk to present to their insurers.
- Assessment of flood risk will be reviewed and updated in 2016.
- This Strategy will be reviewed in 2017 to ensure it remains current and guides all flood risk management initiatives.
- Agreed objectives for managing the coast up to 2025 will be implemented as set out in the new Shoreline Management Plans for Flamborough Head to Gibraltar Point and for the Wash.

Increased flood risk due to climate change

Climate change poses a major challenge in managing flood risk and drainage in Lincolnshire. Increases in global temperatures and changing weather patterns indicate that climate change will cause more extreme weather events. The [UK Climate Projections](#), published in June 2009, predict how these changes will affect us. These challenges will be taken into account in our future flood risk and drainage management measures and activities.

Improving delivery by working together and involving local people

The Lincolnshire partnership will drive changes in the way that existing resources are allocated. Through the common works programme we will seek to achieve more by improving the way we prioritise maintenance and new works, and we will ensure that works and other measures are undertaken by the organisation best placed to deliver the best results.

It is important that in managing flood risk and land drainage we co-operate with neighbouring areas to manage water systems that cross administrative boundaries. For Lincolnshire, this means working closely with Nottinghamshire County Council along the River Trent, and on the south bank of the Humber with North Lincolnshire and North East Lincolnshire Councils, where rivers such as the Ancholme cross administrative boundaries, and where we share interests in effective coastal management.

In the south, we need to work closely with Cambridgeshire, Peterborough, Norfolk and Suffolk, to develop a consistent management approach to the Fens. The Fens cover a very large area, much of which is defended from saltwater flooding by Lincolnshire's and Norfolk's extensive system of coastal defences. Behind these defences a vast, interconnected pumped drainage system maintains some of the best agricultural land in Europe, and its management should be consistent across the whole Fenland area.

The best approaches to flood risk management involve local people in understanding all forms of flood risk, deciding on any measures that may be appropriate, and putting these in place. However, it is equally important that people have the knowledge and support to take their own precautions, making their own properties less likely to flood and, if flooding does happen, less difficult and expensive to repair.

The partnership will establish and maintain regular and consistent dialogue with local people who have been, or may be affected by flooding or by activities to address flood risk. We will use communication methods that work best for the audience. The role of existing community groups, parish and town councils and elected members will be very important in achieving this combination of increasing community awareness and understanding of flood risk, involving people in making decisions about how flood risk and drainage is managed in their area, and building up the ability of communities to help themselves and support emergency responders.

Protecting the environment

All risk management authorities are required to undertake their duties in a way that not only protects the environment, but also seeks to improve it wherever possible. We are currently reviewing where potential environmental improvements could be made, and are working with the Greater Lincolnshire Nature Partnership to ensure that projects designed to manage flooding also contribute to environmental improvement. A [Strategic Environmental Assessment](#) has been carried out to ensure that this Strategy is consistent with the principles of good environmental management.

Monitoring progress

Successful delivery of the Strategy will be managed by the Lincolnshire Flood Risk and Drainage Partnership, and progress will be reviewed in public on a six-monthly basis by the Joint Flood Risk Management Scrutiny Committee.

The works programme will be reviewed annually, and the Strategy as a whole will be subject to a five-yearly review process, including full public involvement, to ensure it is kept up-to-date, takes account of objectives achieved, and continues to maintain a focused forward programme at strategic and operational levels.

Find out more

This Strategy is available online at

<http://www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/implementing-a-strategy-to-manage-flood-risk-countywide-and-locally/103045.article?tab=downloads>

Hard copies are available on request. Postal enquiries should be sent to:

Joint Lincolnshire Flood Risk and Drainage Management Strategy
Lincolnshire County Council
Environmental Services
Witham Park House
Waterside South
Lincoln LN5 7JN

Email enquiries should be sent to sustainability@lincolnshire.gov.uk

For telephone enquiries please contact (01522) 782070



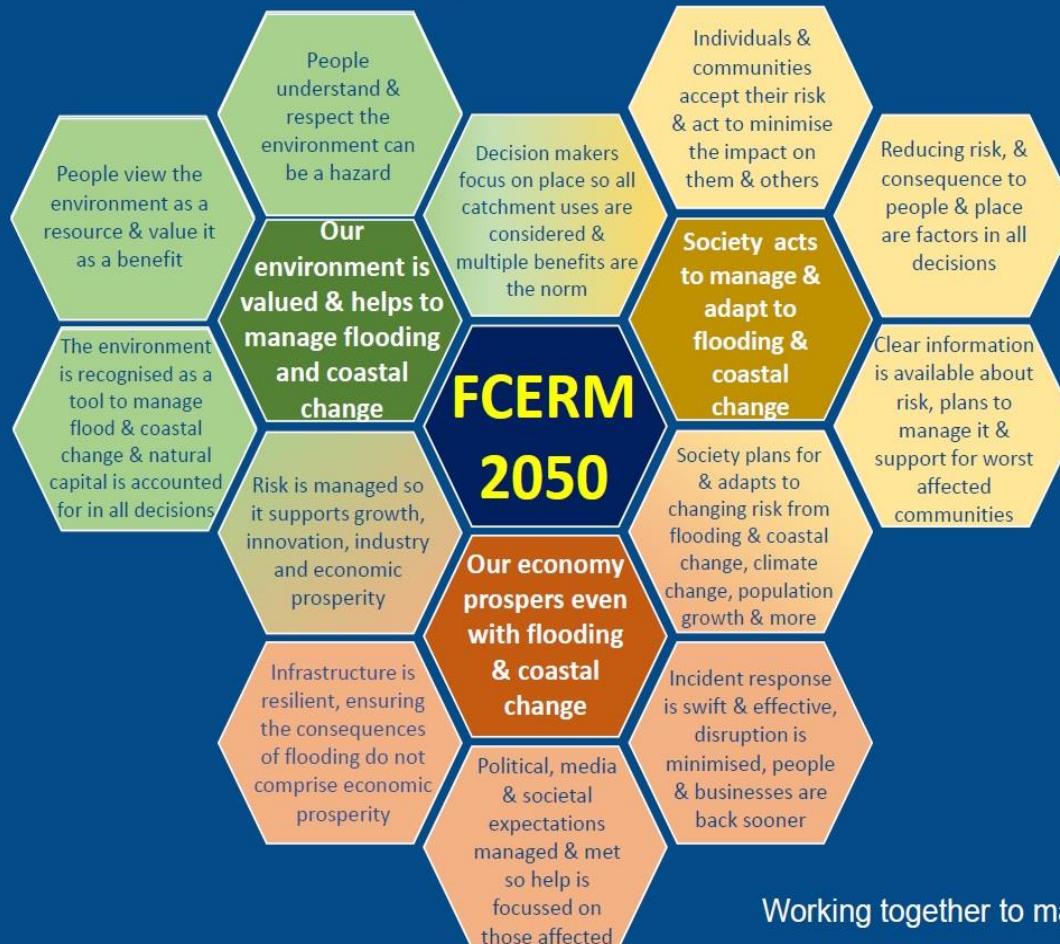
Flood and Water Management Scrutiny Committee - 17/09/2018

Development of the National Flood and
Coastal Erosion Risk Management Strategy

David Hickman
Environment Commissioner

Ambition for the Strategy

FCERM-2050 will help society, economy and environment to be resilient and prosper under increasing flood risk and coastal change.



Enablers



Government

- Could include; policy, legislation or general support
- Cross-departmental working together



Partnership

- Acknowledgement of the case for change
- With the flood family and finance, infrastructure, developers, insurers, SMEs



Finance

- Narrative which encourages access to finance from those who benefit
- Clarity on roles of government and private sector
- Innovative finance



Evidence, Innovation, Technology, Science & Data

- New flood risk products, innovative ways to deal with flood and coastal risk
- Best use of digital tools and data
- Science that helps understand risks and identify solutions



Behaviour & Societal Change

- Social contract? Driven by communities and supported by authorities
- Organisations committed to collaboration

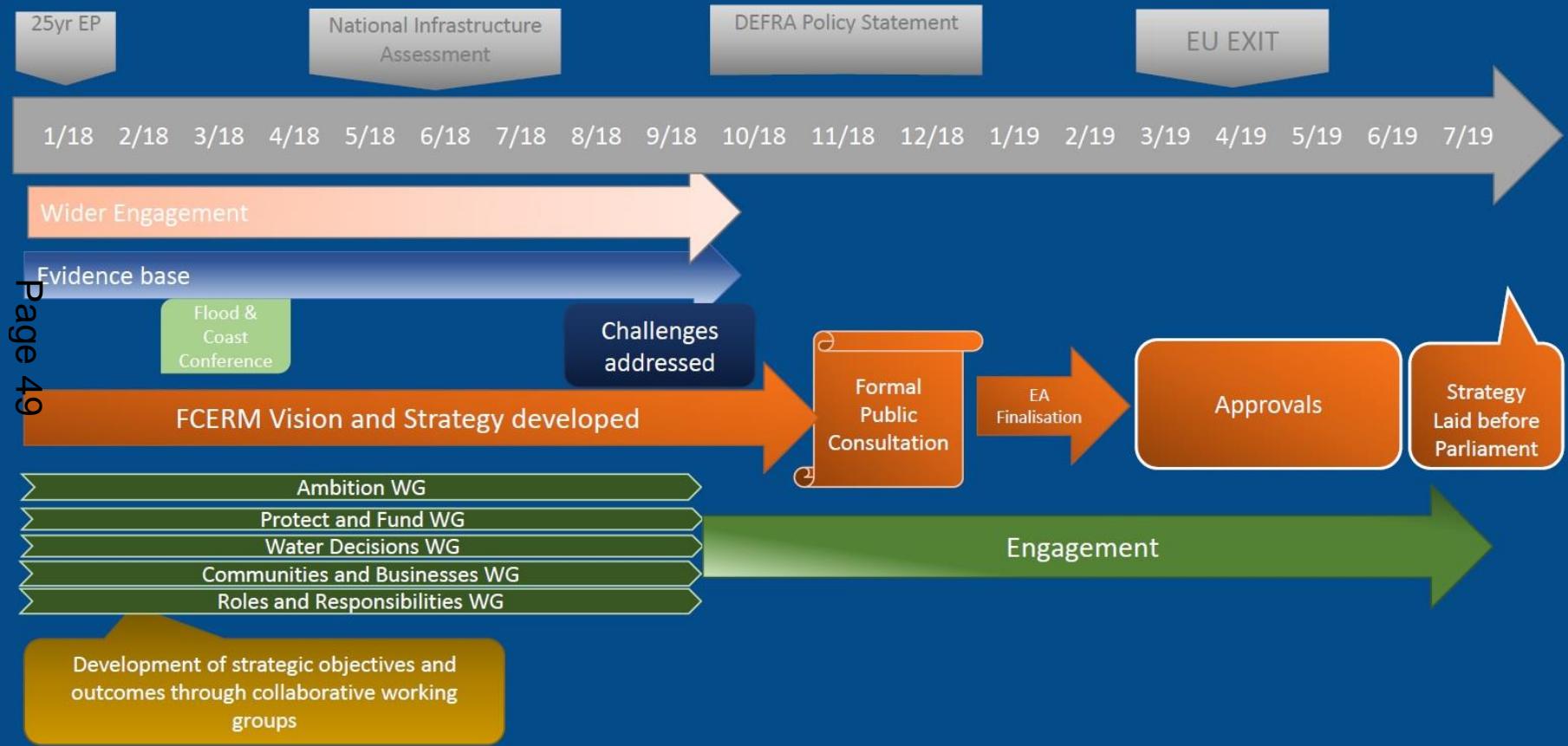
Guiding Principles

- **We put people at the heart of what we do.** We work together to understand risks and solutions. We hear all voices, ensure decisions are transparent and communications clear. Communities are empowered and supported throughout plan, prepare, respond, recover.
- **We work in partnership and with other sectors to create great places for people and for the environment.** We work in partnership across all sectors, with all who make decisions about place to embed understanding of water and grow our understanding of other drivers. We seek multiple benefits that leave the environment in a better place for future generations. Water is not a constraint.
- **We are evidence-led and continually improve our understanding of risk and solutions.** We are evidence-led supporting research to identify pressures and potential solutions. We share findings openly in a way that is easily understandable and accessible to all.
- **We build relationships, support and trust one another to deliver.** We build relationships and trust and are clear on roles and accountabilities. We work in a performance driven culture, valuing assurance and openness about areas to improve. We work collaboratively, effectively and efficiently, sharing our information and data openly.

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- **We seek multiple finance opportunities to deliver resilient solutions.** We believe beneficiaries should contribute to schemes but recognise support should not be compromised by anyone's ability to pay. We look for multiple ways to secure funding, ensure solutions are cost-effective and seek efficiency at all times.
- **We value and actively encourage flexible solutions that adapt to changing risk.** We look long-term and seek to maximise the resilience of our decisions. We consider all pressures whether they directly or indirectly affect flooding and coastal change, and encourage others to do the same.
- **We build on success, actively grow and support the range of skills we need.** We work with educators to embed understanding of flooding and coastal change and the career paths it offers. We recognise and build on our success and support the sector in continually growing and sharing skills
- **We minimise our carbon footprint and strive to be carbon neutral.** We strive to minimise the carbon footprint of our flood risk management and coastal change work, with an aim of being carbon neutral.
- **We manage all sources of flooding and coastal change.** We provide a seamless service across all partners to plan for, respond to, and recover from flooding or coastal change whatever the source.

Development of National Flood and Coastal Erosion Risk Management Strategy



Flood and Water Management Scrutiny Committee - 17/09/2018

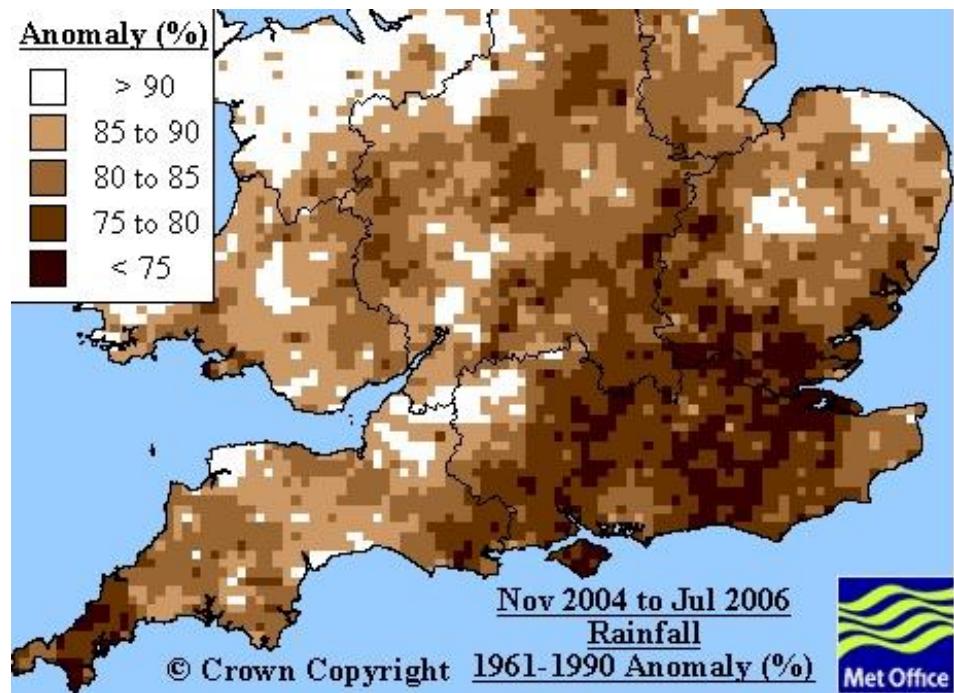
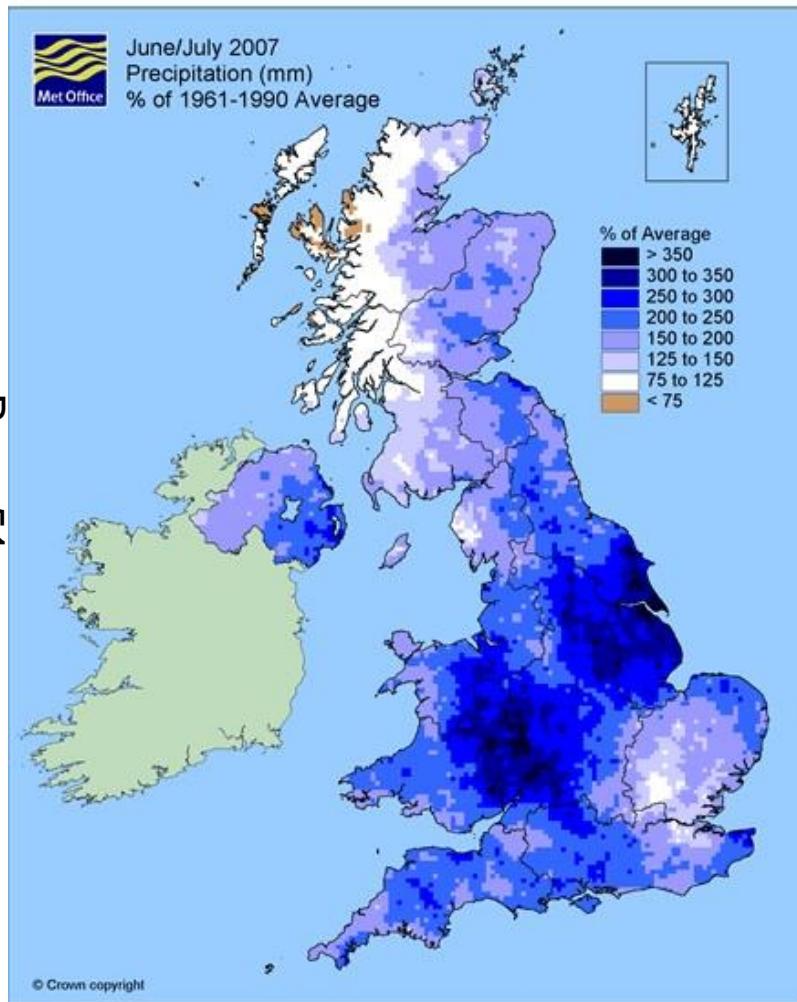
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Review of the Lincolnshire Flood Risk
and Water Management Strategy

Matthew Harrison
Senior Commissioning Officer Flood Risk

A defining year - 2007

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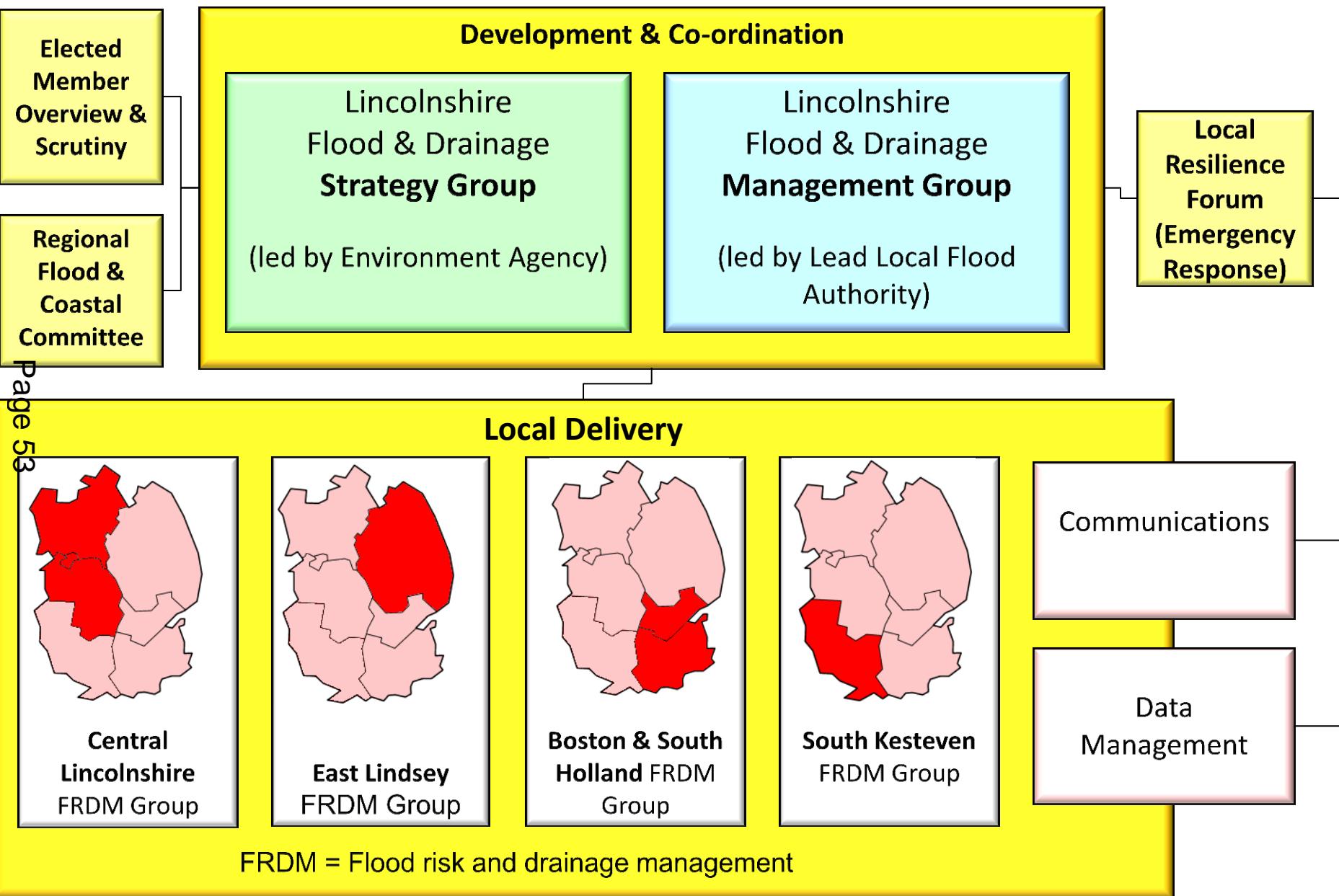


2007

- Multiple surface water flooding incidents
- Pitt Review
- Flood and Water management act 2010
- PARTNERSHIP!



A national exemplar



Lincolnshire Flood Risk & Water Management Partnership

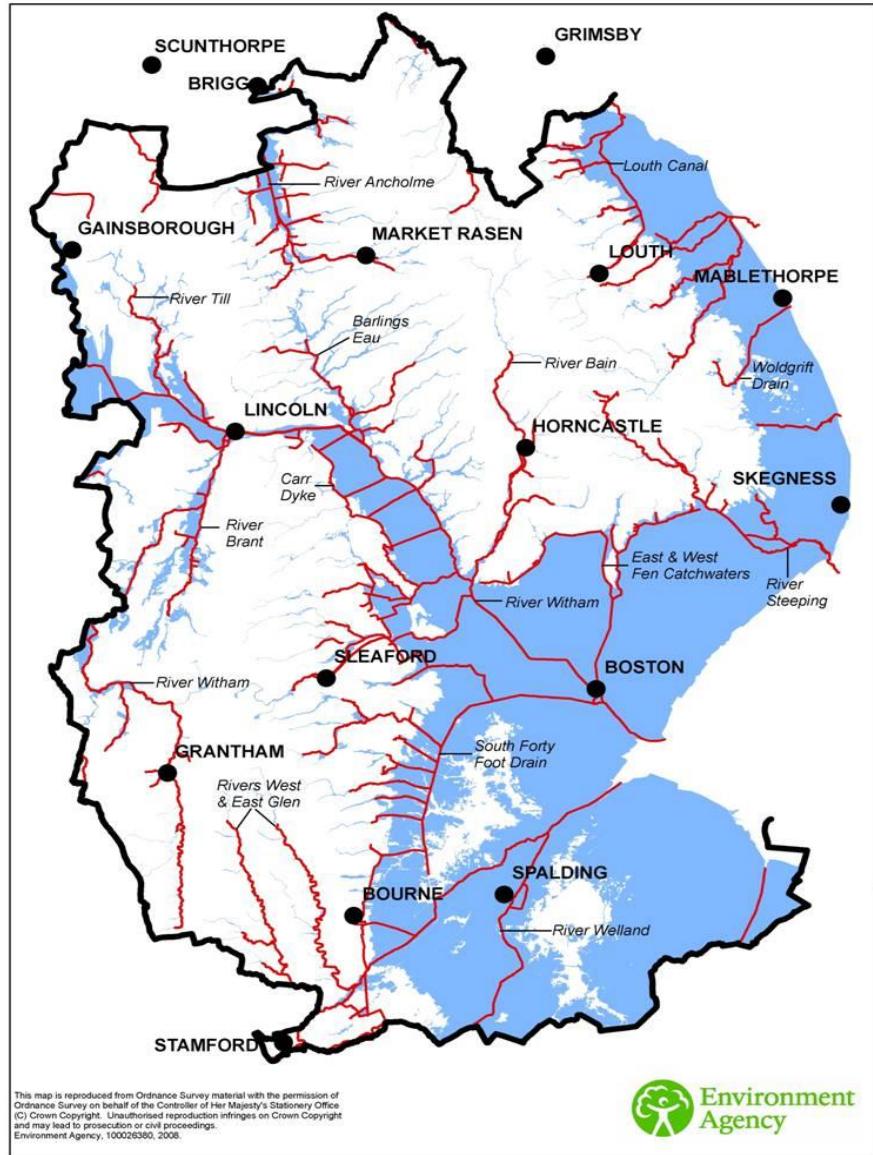
- Lincolnshire County Council - LLFA
- The Environment Agency
- 14 Internal Drainage Boards
- 7 District Councils
- 2 Water Companies
- Regional Flood & Coastal Committee
- Emergency Planning & Response

So who does what?



The Environment Agency

- Coastal Defence
- Main rivers
- National overview of flood risk management
- Floodline – flood warning system



Internal Drainage Boards (IDBs)

Drain low-lying areas
(40% of Lincolnshire)

Land drainage –
especially agricultural
land, but also some
urban areas

Water level management



Water Companies

- Supply water
- Remove and treat foul water (foul and combined sewers & treatment works)
- Surface water drainage of developed areas (surface water & combined sewers)





District Councils

- Key role as Local Planning Authorities
- Works on ordinary watercourses (outside IDB areas) – LCC has all other Land Drainage Act responsibilities

LLFA responsibilities include...

- Preliminary Flood Risk Assessment (PFRA)
- Local Flood Risk Management Strategy
- Duty to investigate flooding
- Flood risk management works –minor works and capital programme through FDGiA
- Asset Register
- Land Drainage Act powers (delegated to IDBs)
- Emergency response
- SuDS and statutory consultee role, as part of the development management process

Partnership strategy and action plan

- Joint vision
- All sources
- Flood risk, drainage & emergency planning
- Common works programme

Joint Lincolnshire Flood Risk and Drainage Management Strategy, Part 1 of 3
Strategic Vision

Lincolnshire Flood Risk and Drainage
Management Partnership Framework

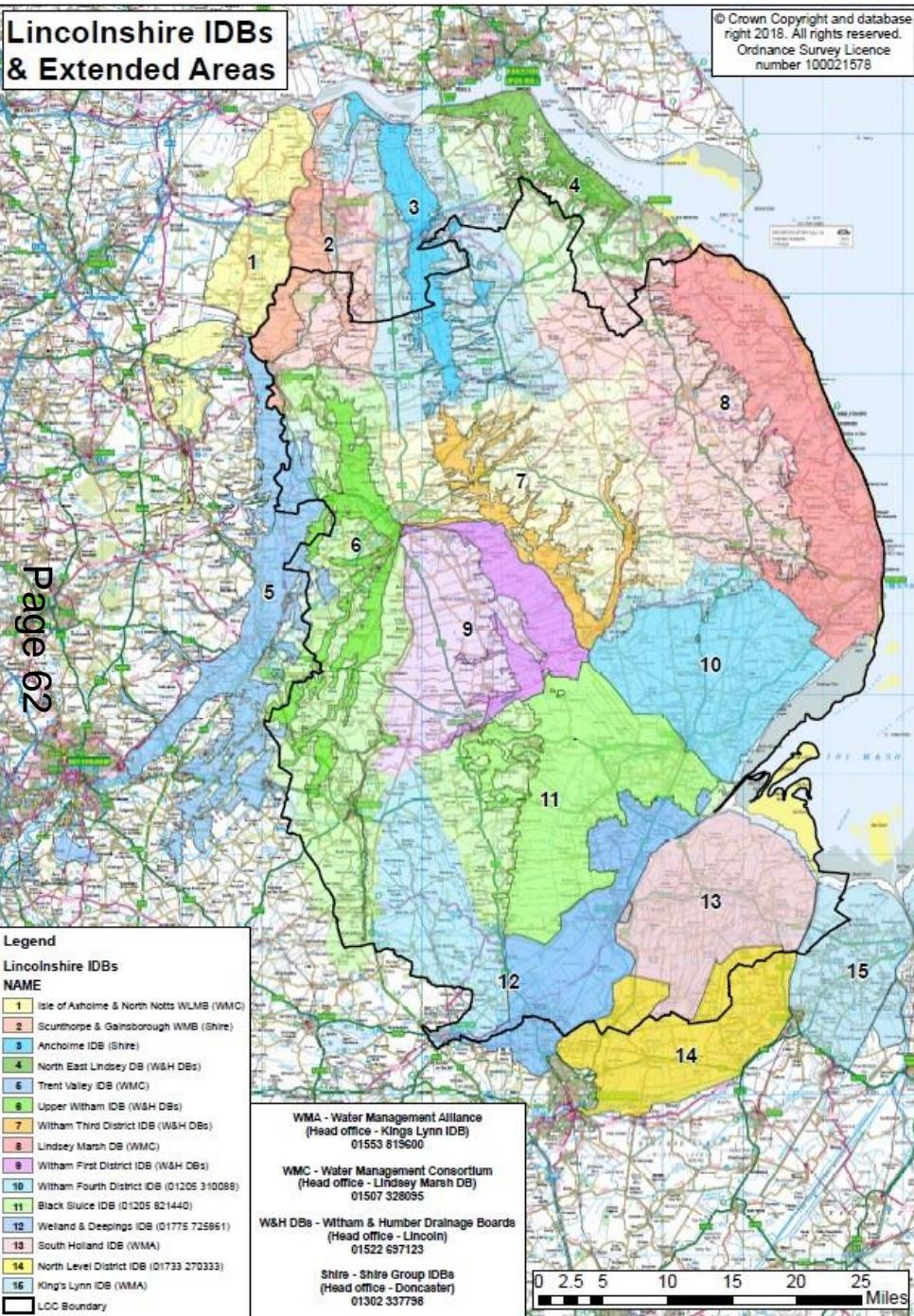


Joint Lincolnshire Flood Risk and
Drainage Management Strategy
2012-2025

Part 1 of 3

Strategic Vision

Lincolnshire IDBs & Extended Areas



LAND DRAINAGE RESPONSIBILITIES

Delegation of powers under the FWMA Act: IDBs operate with extended boundaries

Memorandum of Understanding – now 3 year agreements

MoU reflects partnership principle of most appropriate partner delivering

Capital Works

Flooding at Stamp End in 2007



Page 63



84 homes flooded

200 residents evacuated



Partnership working to deliver



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- Horncastle
- Previous SoP 10% (1in10)
- Current SoP 1% (1in100)
 - Funding

LCC	£2.8M
ELDC	£0.5m
W3DB	£0.3m
FDGiA	£1.72M
LL	£2.65M

Partnership working to deliver

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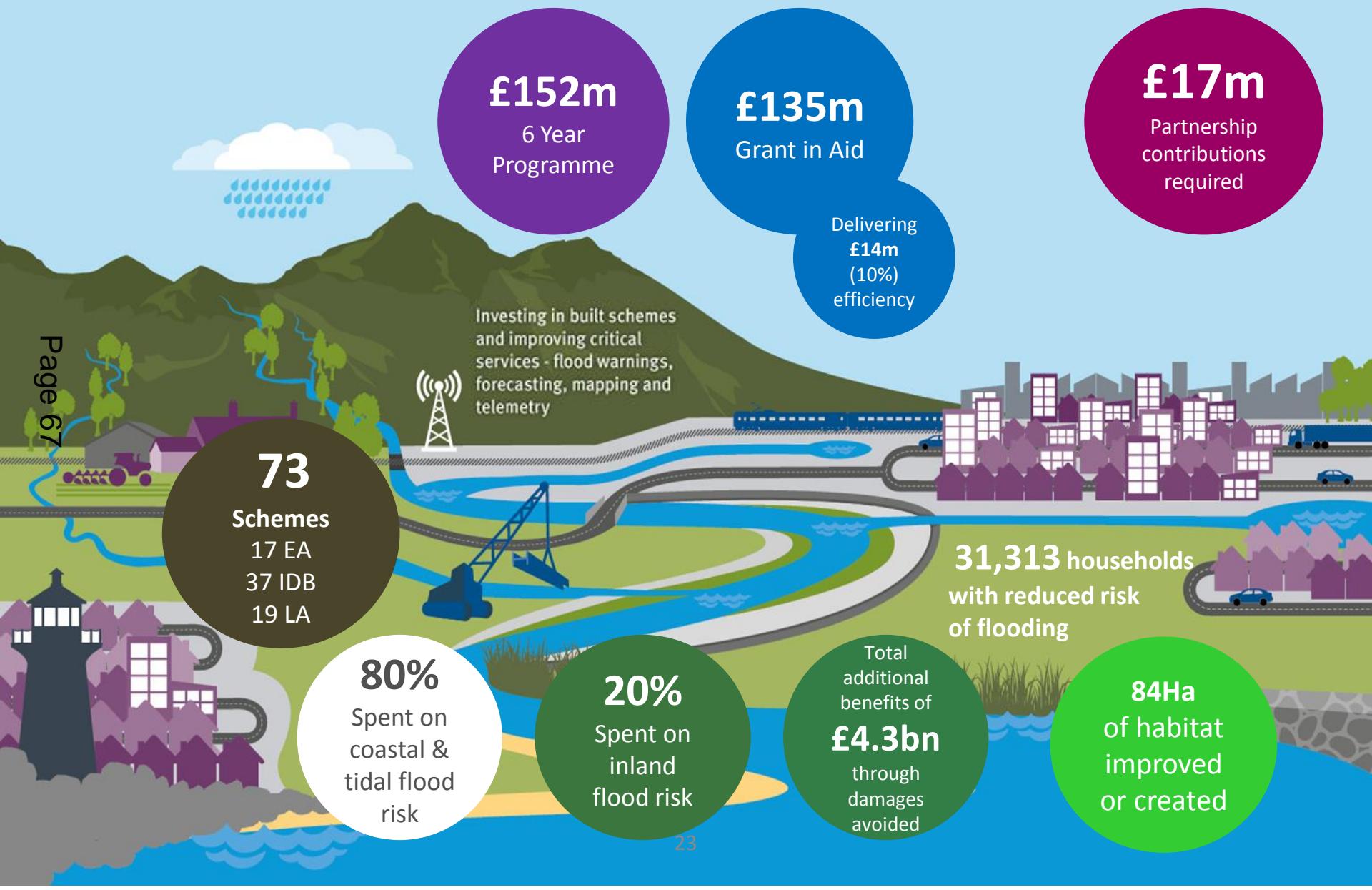
- Louth
- Previous SoP 5% (1in20)
- Current SoP 0.65% (1in100)
 - Funding

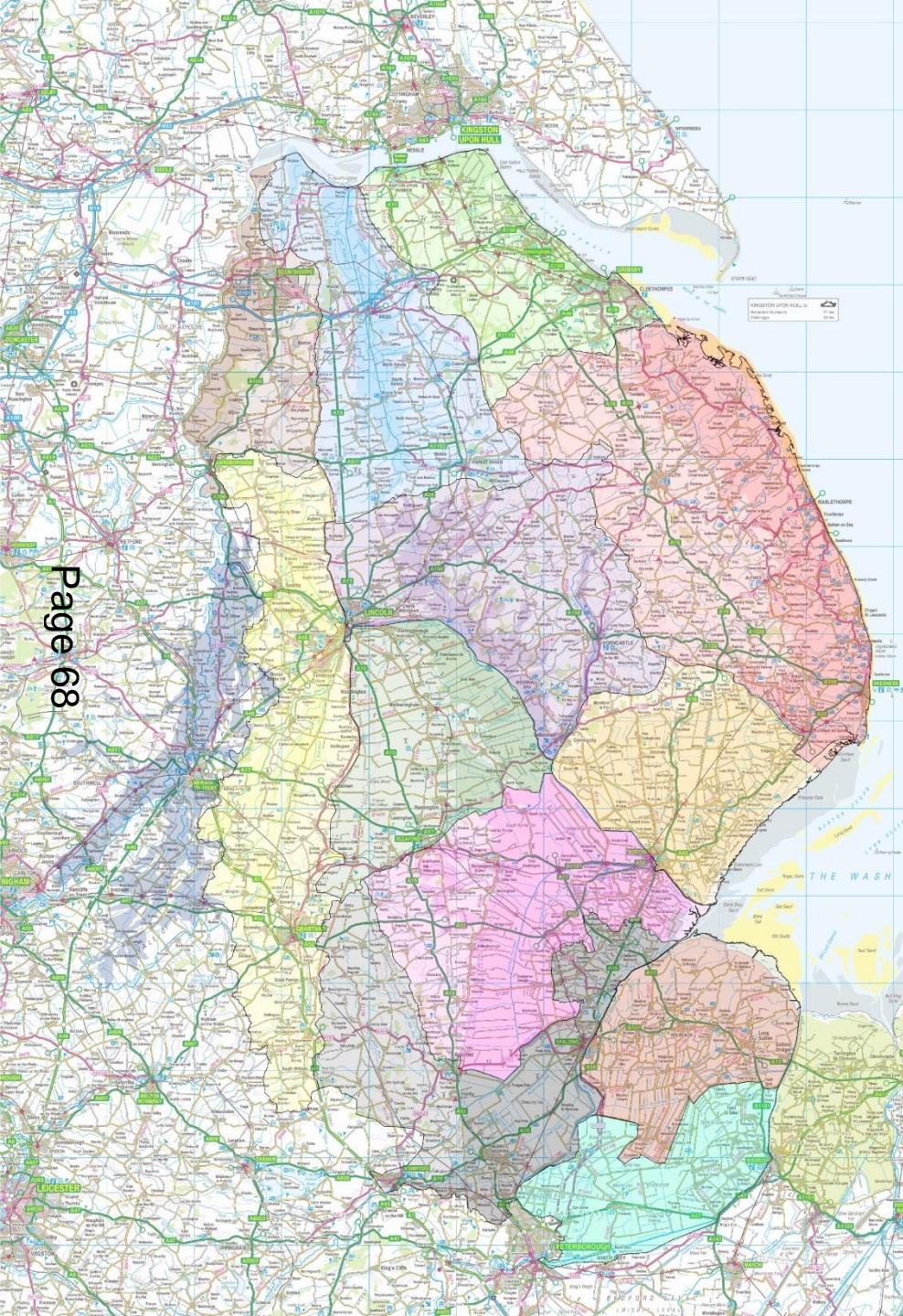
LCC	£3.2M
ELDC	£0.5m
LMDB	£1.03m
FDGiA	£1.24M
AW	£0.3M

Flood and Coastal Erosion Risk Management

Lincolnshire County

Capital Investment Programme 2015 to 2021





**Better co-ordinated
use of resources**

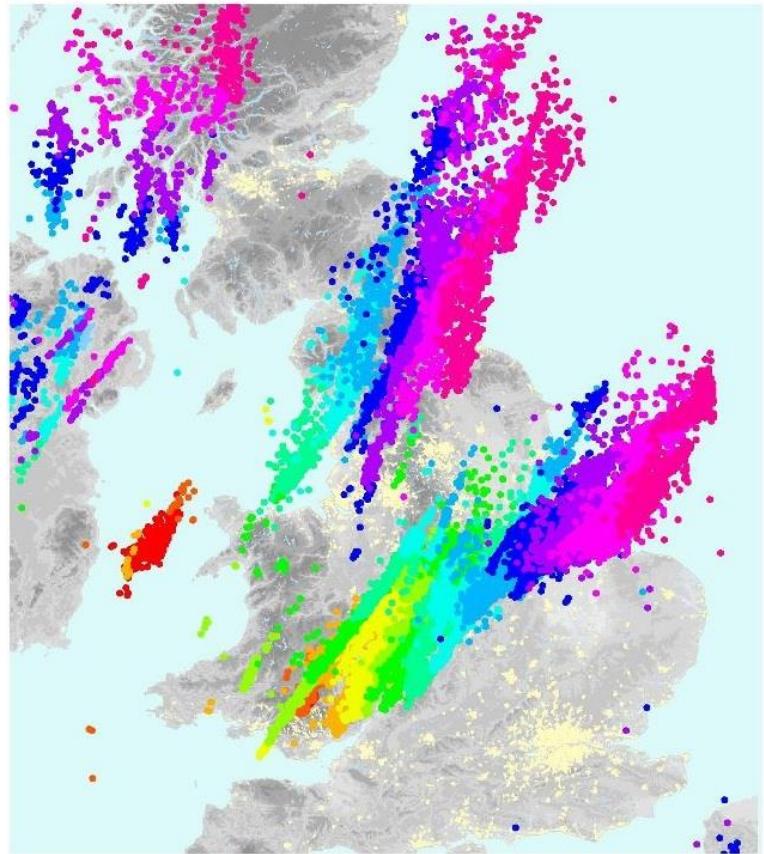
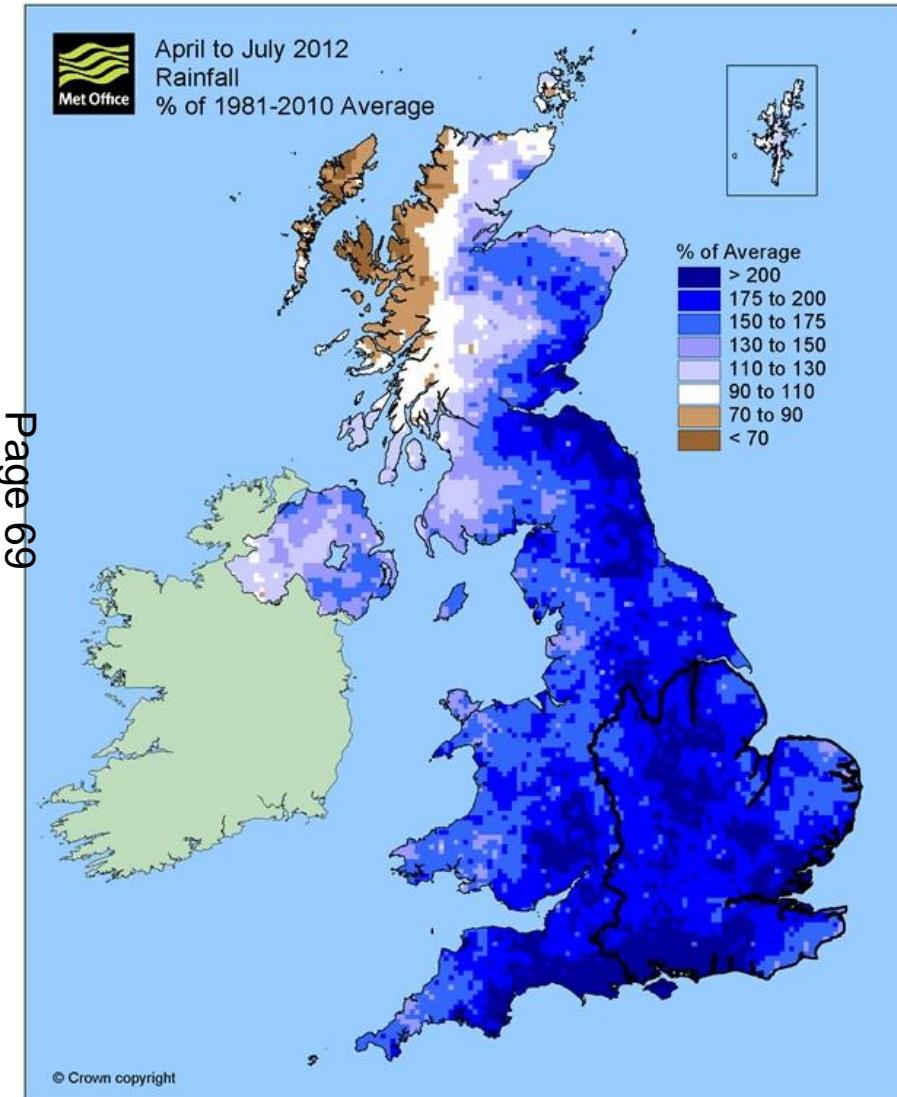
Joint working

**Delegation between
authorities**

**Alignment of
operations**

More ambitious goals

Here we go again - 2012



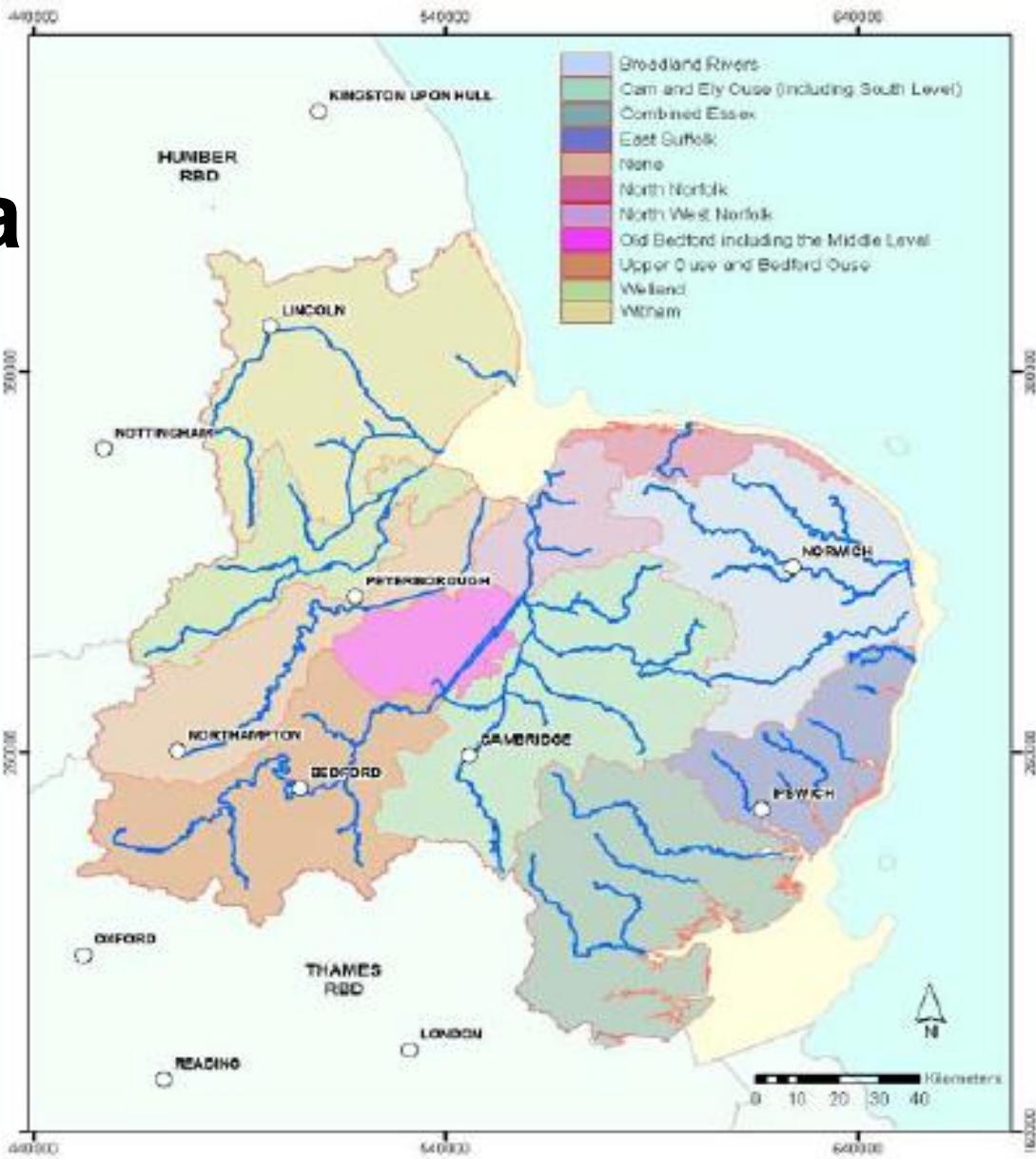
Lightning strike times

- 05:00 to 06:00
- 06:00 to 07:00
- 07:00 to 08:00
- 08:00 to 09:00
- 09:00 to 10:00
- 10:00 to 11:00
- 11:00 to 12:00
- 12:00 to 13:00
- 13:00 to 14:00
- 14:00 to 15:00
- 15:00 to 16:00
- 16:00 to 17:00
- 17:00 to 18:00

A broader agenda

- Water as a resource
- Water for economic growth
- Capability to move water around to where it is needed

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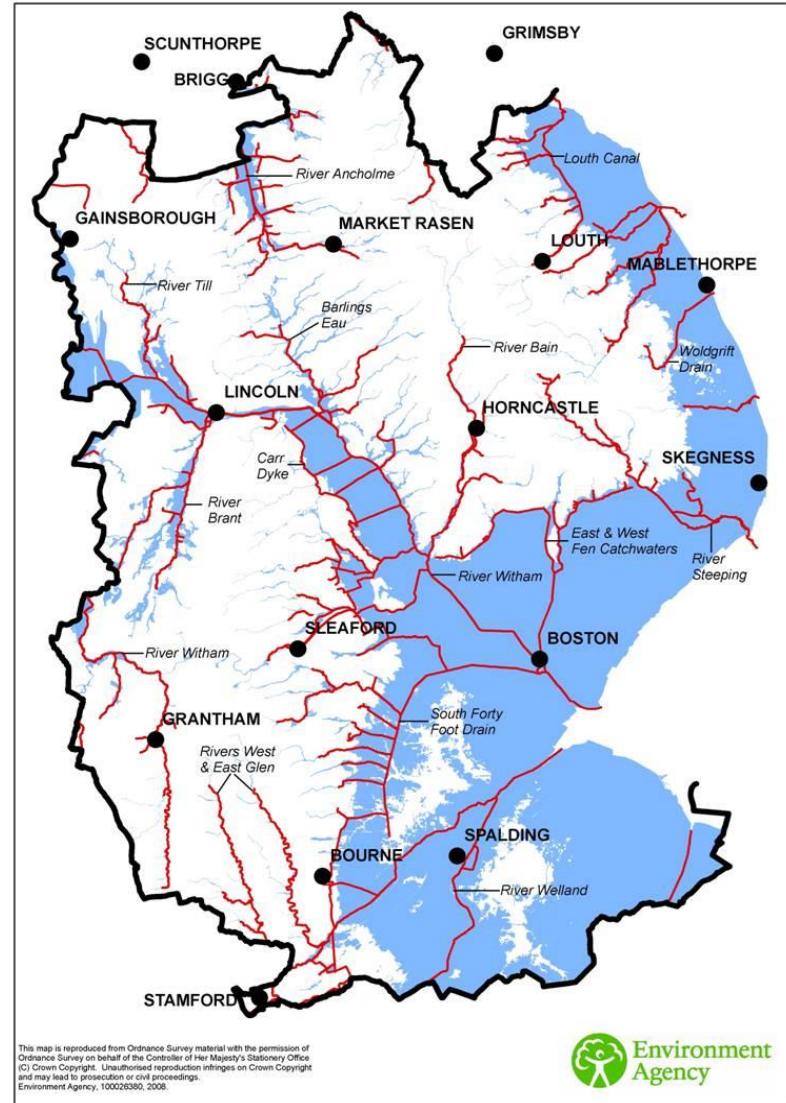


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Date produced 05/11/08

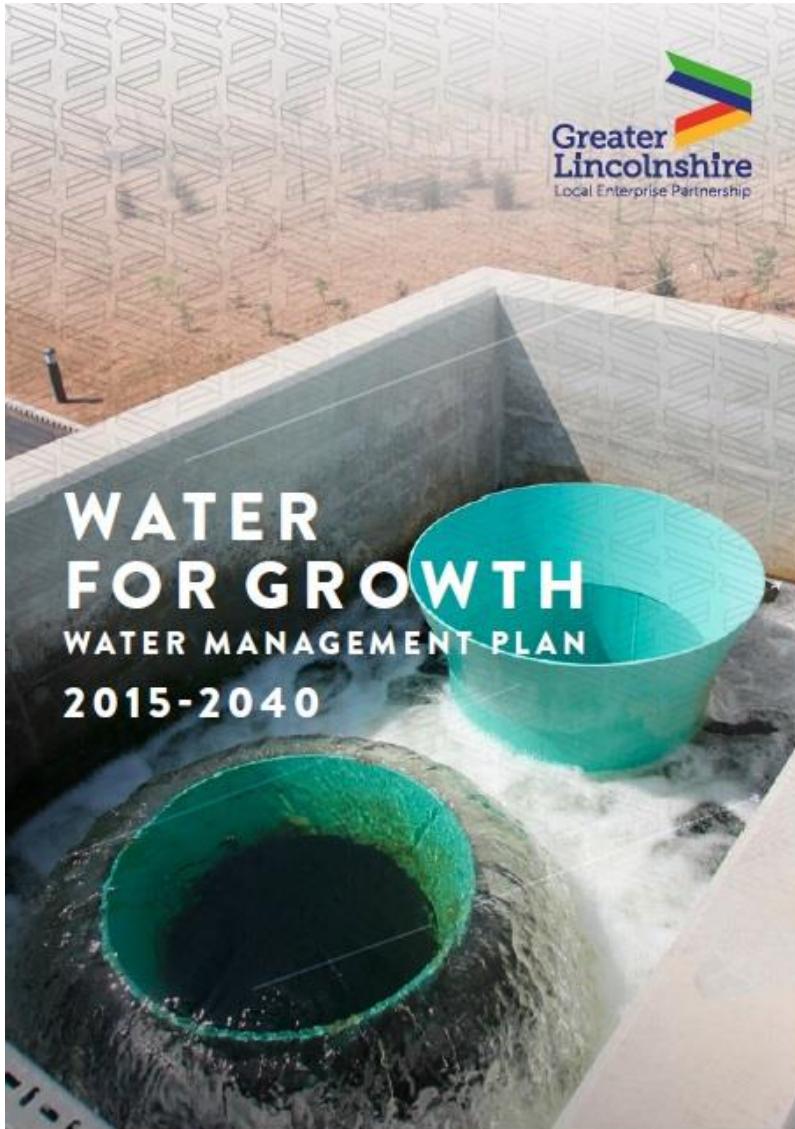
RBD Boundaries
Catchment Boundaries
Main Rivers
Main Towns

The opportunity of the GLLEP

- Economic Growth Strategy
- Integrated water management – contributes to UK Plc
- Local Growth Fund
- Collaboration across LEPs
- GLLEP Water Management Plan shaping economic case



Water Management Plan



The Greater Lincolnshire LEP considers the effective management of flood risk and water resources to be a critical factor in enabling economic growth across the area

Lincoln average rainfall

City	Average rainfall (mm)	Driest
Buenos Aires		
Cape Town		
Dallas		
Lincoln		
Miami		
Nairobi		

Lincoln average rainfall

City	Average rainfall (mm)	Driest
Cape Town	613	1st=
Lincoln	613	1st=
Dallas	940	3rd
Buenos Aires	980	4th
Nairobi	1016	5th
Miami	1524	6th

Developing our Strategic Approach

- Strategy completed & approved 2012
- Nine main objectives
- Covers period 2012-2025
- Still relevant?
- Some expected legislation not enacted
- Partnership has taken flexible approach as circumstances change
- New initiatives & opportunities emerging

Moving forward

To achieve multiple benefits locally that;

- Improve flood risk management
- Provide greater water resource sustainability that supports economic and housing growth
- Builds on the Catchment approach
- Provides amenity benefits and environmental betterment

Overall we seek to provide an area resilient to flood risk and water resource issues with a long term strategic vision – with local benefits

Next Steps

Questions

?

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Agenda Item 8



Policy and Scrutiny

Open Report on behalf of Environment Agency

Report to:	Flood and Water Management Scrutiny Committee
Date:	17 September 2018
Subject:	Humber Strategy Comprehensive Review

Summary:

The purpose of this report is to update members on the current status of the Humber Strategy Comprehensive Review, which seeks to redefine the strategic approach to managing tidal flood risk on the estuary, setting the way forward for the next 100 years. The review is being undertaken by a partnership of 12 local authorities (of which Lincolnshire County Council is one) and the Environment Agency. The intention is that the review will be completed, and formally adopted by all partners, by 2021.

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. Background

The current Humber Strategy, Planning for the Rising Tides, was approved by government in 2007. Its intention was to set out the overall approach to managing the risk of tidal flooding around the estuary in a way that was sustainable for the people who live there, the economy and the environment. Since it was approved, the Environment Agency has completed more than £75 million of flood risk management schemes around the estuary – these schemes have reduced the risk of flooding to more than 40,000 homes, as well as businesses, industry and land. We are spending more than £86 million of government funding between 2015 and 2021, reducing the risk of flooding to 50,000 homes.

We began work to update the Strategy in 2011 to reflect changes in legislation and Government policy. Working with Defra, Government, local MPs and local authorities, following the 2013 tidal surge, it was agreed that the best way forward was a Comprehensive Review of the Strategy developed in partnership. This Comprehensive Review will seek to redefine the strategic approach to managing tidal flood risk on the estuary and set the way forward for the next 100 years. It follows the principles set out in Defra's National Flood and Coastal Erosion Risk

Management Strategy, which gives communities a greater role in risk management decisions, with the Environment Agency having a strategic overview.

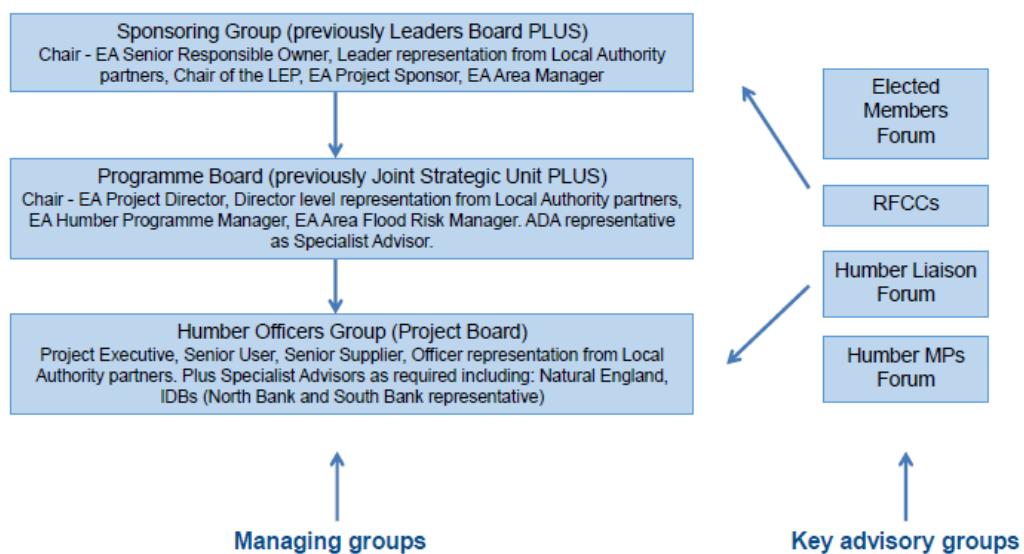
A key driver for the review is the recognition that rising sea levels as a result of climate change will have a significant impact, not only on existing communities around the estuary, but on the potential for future growth and sustainable development. The review provides an opportunity to work in partnership to ensure a robust strategy is in place for the long term to support sustainable development. The Environment Agency and local councils will work together to align the strategy and local plans around the estuary. This will support local priorities, strategy delivery and strengthen the regional case for investment in flood management.

Existing strategies and plans for managing flood risk around the Humber are also being taken into account as part of the Comprehensive Review process. In particular, there is a critical link with the Flamborough Head to Gibraltar Point Shoreline Management Plan, which overlaps with the Humber Strategy in the outer part of the estuary. There is a strong linkage between the SMP and the existing Humber Strategy, and we are seeking to maintain that linkage as the strategy is reviewed and the SMP is refreshed.

Governance

The original strategy area covered 6 local authorities, but the area covered by the Comprehensive Review has been expanded to include a further 6, in order to include all areas where tidal flooding is the dominant risk. All 12 local authorities are working in partnership with the Environment Agency to deliver the Comprehensive Review, under an agreed governance structure which is summarised by the diagram below.

Governance reflecting Major Project Status



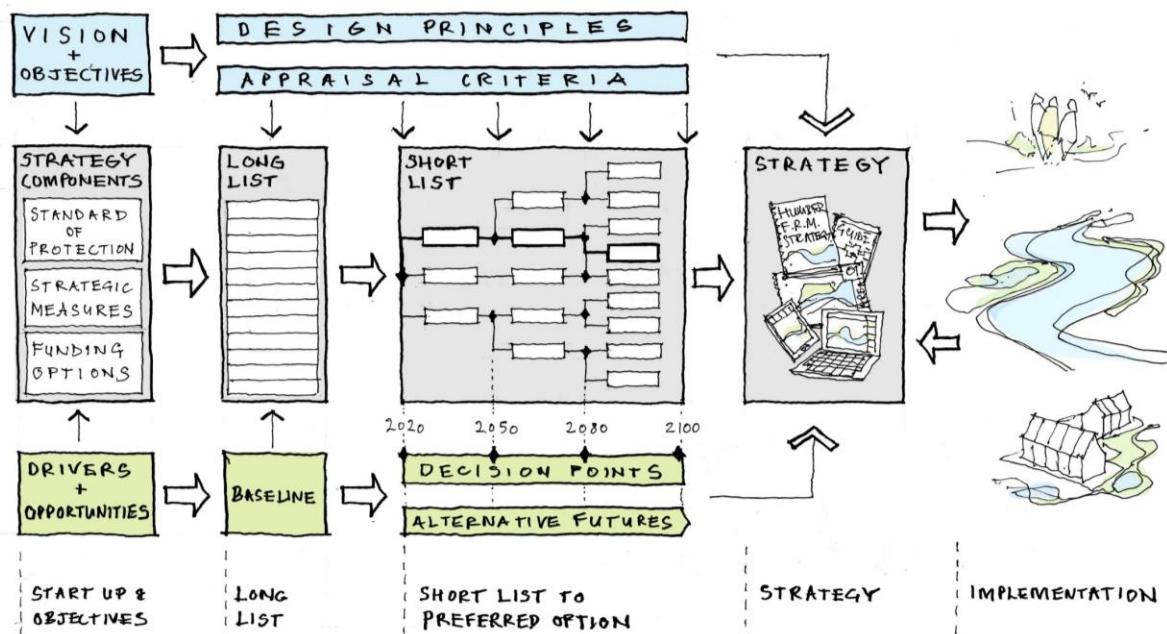
Consultancy firms Jacobs and Arup are also involved to provide technical expertise. The partnership is working to publish a final, agreed strategy by 2021.

Progress of the review

During 2017, work was carried out to set objectives for the project and establish a long-list of potential strategic approaches for managing tidal flood risk. The options on this long-list have now been through an appraisal process three strategic approaches have been identified. Throughout the process, consideration will be given to:

- A number of potential approaches to addressing the **standard of protection** provided across the estuary
- A range of **strategic measures** for managing tidal flood risk such as raising current defences, flood storage areas and community resilience measures and;
- **Funding and investment opportunities** and approaches

The review will take a managed adaptive approach, to allow the revised strategy to be resilient and responsive to future challenges and opportunities. The diagram below summarises the review process and illustrates how the managed adaptive approach will generate a range of potential pathways, which will shape the development of the final strategy. As key decision trigger points are reached, the pathways will be revisited and consideration will be given to whether the strategic approach should be reviewed. Triggers could include factors such as increase in risk, and especially including the extent to which risk increases as sea levels rise, policy changes and economic factors.



2. Conclusion

Next steps

At present, the partnership are reviewing the proposed strategic approaches, and once these have been agreed a further more detailed appraisal process will be undertaken. Three baseline options (do nothing, do minimum and maintaining the status quo) are also being considered.

Once the potential strategic approaches have been agreed, wider engagement with key stakeholders will begin during autumn 2018. The first opportunity for consultation with wider groups and communities is expected to occur in spring 2019 when the Interim Sustainability Appraisal report is published.

The preferred option will be identified and agreed during autumn 2019, with full public consultation on the draft strategy scheduled for autumn 2020. Once this has concluded, and any necessary alterations have been made to the draft strategy it will be agreed by partners, approved by Defra and published in 2021.

Throughout this process we are continuing to progress an extensive programme of capital works around the estuary. Future capital schemes will be developed in line with the chosen strategic approach, but also with a view to potential future scenarios. The partnership will be fully involved in developing any proposals for securing additional funding, and this will be a key consideration, whichever strategic approach is ultimately selected.

3. Consultation

a) Have Risks and Impact Analysis been carried out?

No

b) Risks and Impact Analysis

Risk and impact will be considered as part of the review.

4. 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 Laura Hopton, who can be contacted on 07789944802 or laura.hopton@environment-agency.gov.uk.



Humber Strategy Comprehensive Review

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September 2018



Agenda

- Purpose of Comprehensive Review
- Objectives and partnership
- Long-list Appraisal and selected strategic approaches
- Questions



Purpose of Comprehensive Review

- To redefine the strategic approach to managing tidal flood risk in the Humber over the next 100 years
- To achieve collective agreement to the strategy from 12 LA partners and the LEP





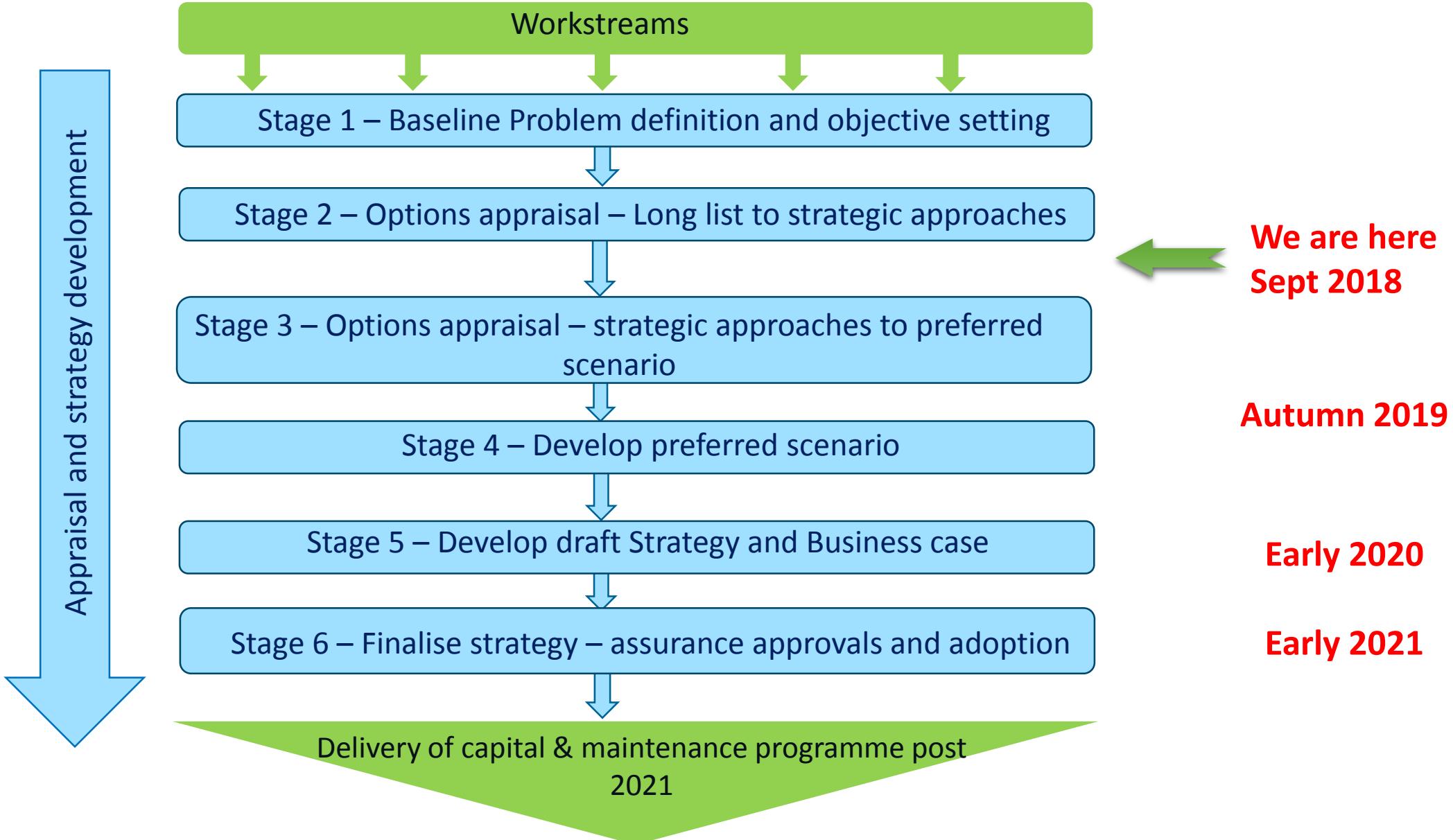
Study Area:

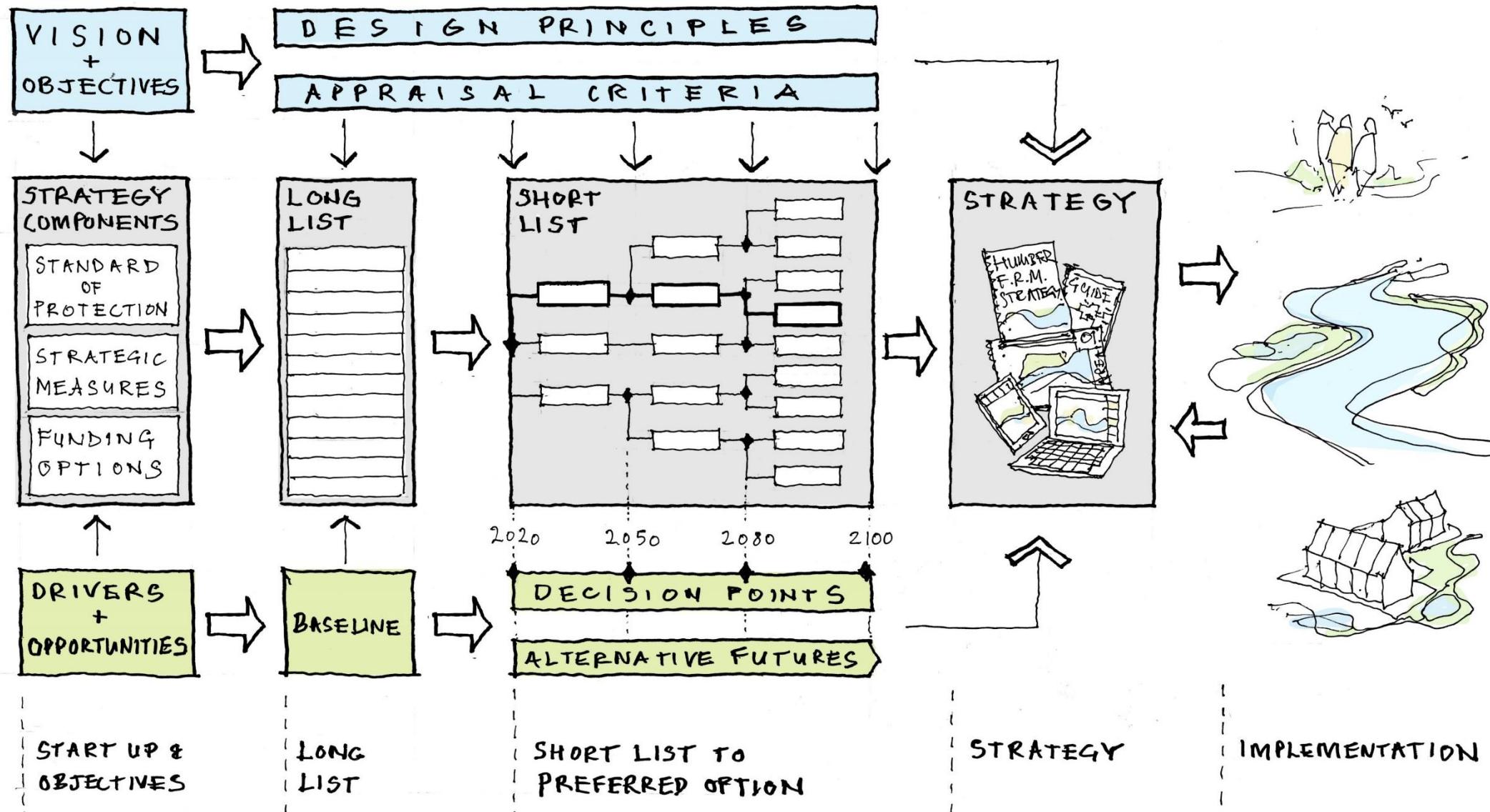
- 660,000 people
- 290,000 properties
- 73,000 businesses
- 165,500 hectares of land
- Major industry
- UK's largest port complex

The EA, LAs and the Humber LEP will work in partnership to support sustainable development and a prosperous Humber.

We will do this by redefining the strategic approach to managing tidal flood risk on the Humber for our communities and the Country, setting the way forward for the next 100 years taking into account predicted sea level rise and climate change



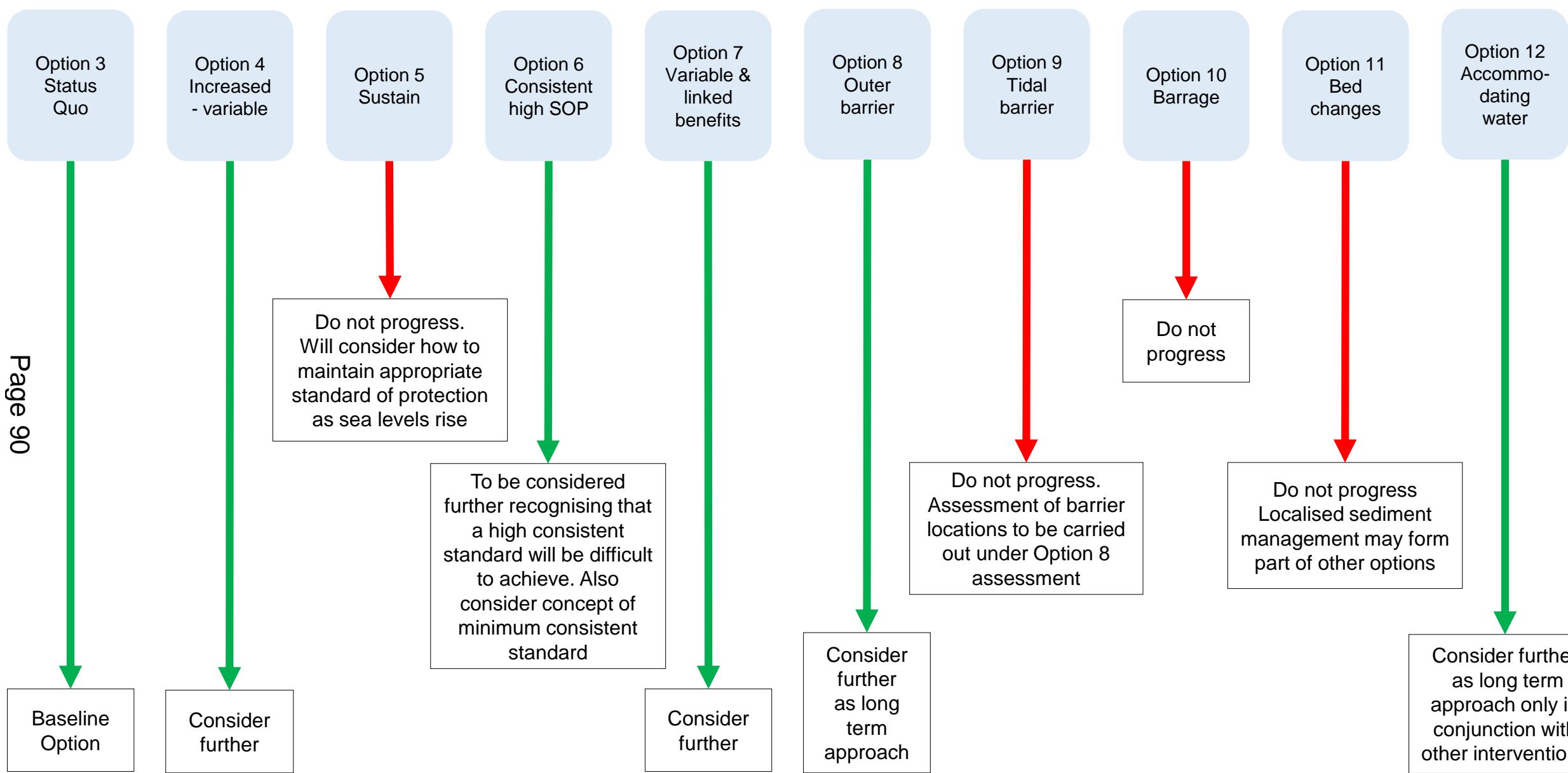




Summary of Long-list

No.	Strategic Option / Scenario
1	Do Nothing - Baseline scenario
2	Do Minimum - Maintain existing defences everywhere
3	Raise defences where locally affordable (FDGiA + PF), maintain elsewhere (retain status quo)
4	Increased level of protection using funding above FDGiA + PF, maintain elsewhere
5	Sustain current Standard of Protection everywhere
6	Raise defences everywhere to a consistent standard
7	Variable height defences, flood storage, and linking of benefit areas
8	Outer estuary FCRM barrier, fluvial maintain upstream, raise defences to seaward
9	Tidal river barriers and raise defence to seaward
10	FCRM barrage in outer estuary with associated tidal energy development
11	Engineered estuary bed changes
12	Manage tidal flood risk by working with natural processes and provision of estuarine habitat
	All options with the exception of Do Nothing will include the provision of legally required habitat creation





Draft set of strategic approaches

- Draft set of strategic approaches presented at Officer Group in July
- There was agreement over the overall pathway approach and the three strategic approaches in principle
- Further work to do on the definitions and ensuring clarity on wording for each strategic approach
- Looking to gain agreement to the strategic approaches to be considered further from all 12 LAs



Overarching considerations

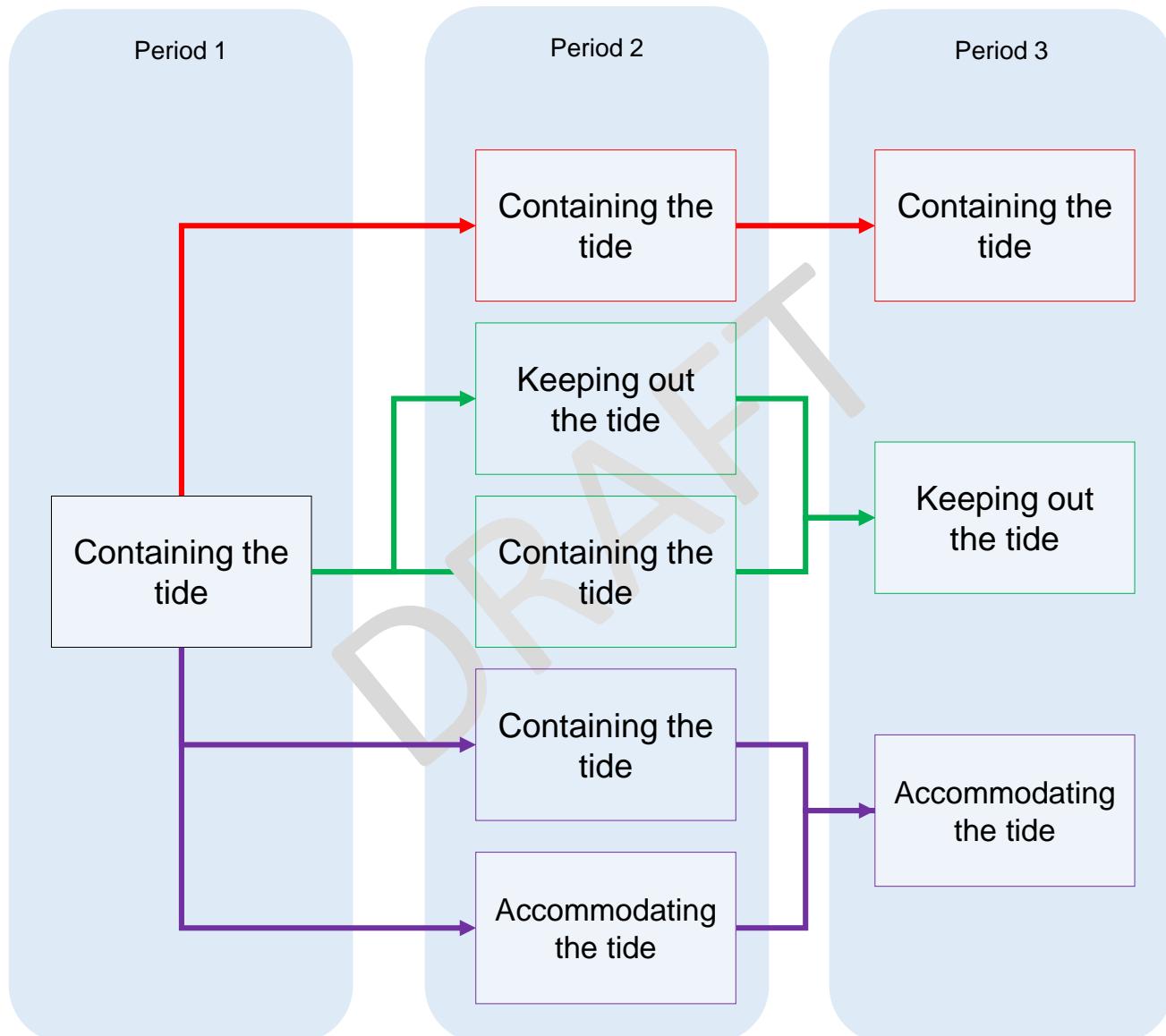
- Three time periods – short, medium and long
- Level of risk - variable, variable with minimum, consistent
- Funding & investment
- Linking of benefit areas
- Recognition that major change in approach likely to be needed in the long term



Living with the Tide – proposed strategic approaches

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- Baseline options
- Strategic approach 1
 - Containing the tide
- Strategic approach 2
 - Keeping out the tide
- Strategic approach 3
 - Accommodating the tide



Next Steps

- Agreement to the strategic approaches
- Social, economic, technical, environmental appraisal
 - informed by local needs and priorities
- Identify preferred approach (Autumn 2019)
- Develop funding & investment approach
- Extend engagement
- Continue delivering schemes within this 6 year programme



Thank you

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Eau Bank Dyke

© Steve Fareham



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Agenda Item 9



Policy and Scrutiny

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

Report to:	Flood & Water Management Scrutiny
Date:	17 September 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 current S.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/floodrisk-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.

This update covers the period from April 1st 2018 to August 31st.

A stormy start to the period resulted in three flood investigations in April; the highway network and four residential properties were affected. May was generally dry, but at the start of June isolated heavy showers gave rise to five flood investigations affecting 11 properties, including a couple of commercial premises. There was a further stormy spell at the end of July, with localised heavy showers over a day or two accounting for most of July's rainfall, as a result of which three flood investigations were started affecting eight properties. There were a further six investigations started into flooding of eight residences in August.

This is a total of 17 investigations during the period, affecting 31 properties and the highway network, all in connection with surface water. In comparison, in the same period last year there were four flood investigations.

In addition to the above, two investigations commenced into historical flooding that has only just been brought to the attention of the authority.

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 or programmed 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.

Lincolnshire County Council Section 19 Investigations - East Lindsey District Council Network Area - Area Highways Manager Andrew Ratcliffe (East)													
Appendix A													
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. 3 properties	3	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. 4 properties	4	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. Anglian Water has fitted a new grill and access points to deal with safety concerns related to cleaning debris from watercourse. An LCC capital scheme is included in the Medium Term Plan for works in 2020/21	Yes	LCC AW Witham 3rd IDB	On-going	2018/19	S19-005	
28 June 2012	New Bolingbroke 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	
28 June 2012	Toynot 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	After further investigations carried out by AW additional works are planned, including running of a new model. Recommendations advised to property owners.	No	AW	On-going	1 March 2020	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. Anglian water removed gas service pipes intruding in the surface water system in 2015.	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. AW to check new model.	No	AW ELDC	On-going	Spring 2015	S19-100	

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	Surface water bypassed the highways drainage system and flowed over the vehicular access causing internal flooding to the property. 1 property	1	Completed	The inability of the drainage assets to cope with the flow of surface water contributed to the property internally flooding. Consideration to be given to better managing the surface water flow paths including points of discharge.	EA - Yes AW - Yes LMIDB - Yes LCC - Yes Binbrook Parish Council - Yes ELDC - Yes	LMDB have worked in conjunction with the riparian owners with regards to maintenance.		LCC	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
09 January 2018	Sibsey Main Road	Groundwater is coming above the surface including under house. 1 property	1	On-going			TBC	TBC		On-going		S19-198
02 April 2018	Louth Grimsby Road	Fire & Rescue attended and pumped out 3 properties and put preventative measures in place to prevent further flooding. 3 properties	3	On-going	TBC		TBC			On-going		S19-199
02 June 2018	Woodhall Spa Witham Road Tor-O-Moor Road	Surface water flooding. 3 properties	3	On-going	TBC	TBC	TBC			On-going		S19-203
02 June 2018	Burgh on Bain Main Road	Surface water flooding. 1 property	1	On-going	TBC	TBC	TBC			On-going		S19-204
TBC	Partney Chapel Lane	Surface water flooding. 1 property	1	On-going	TBC	TBC	TBC			On-going		S19-206
27 July 2018	Skegness Sunningdale Drive	Surface water caused property to internally flood. 6 properties	6	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-210
TBC	Horn castle Churchill Avenue	Surface water flooding. 2 properties	2	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-211
TBC	Skegness Roman Bank	TBC 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-212
27 July 2018	Horn castle West Street	Surface water flooding which entered the property through the back door and flooded the kitchen and dining room. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-220

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, Raby Road	Flooding was caused by surcharging surface water sewers combined with overland flows. 4 properties Maple Avenue - 2 Properties Pelham Crescent - 1 Property Raby 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 Raby 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 2020/21. 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	Possible works 2020/21	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	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	
9th August 2017	Scutter 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		S19-154	
02 April 2018	Blyton High Street	Surface water run-off from higher ground to the rear of the property following a period of heavy rain caused the property to flood. The drainage system was unable to cope with the volume of water which caused the dyke to the side of the property to overflow. 1 property	1	Complete	TBC		TBC			On-going		S19-089	
TBC	Cherry Willingham Lime Grove	Surface water flooding. 1 property	1	On-going	TBC		TBC			On-going		S19-201	
10 August 2018	Lincoln Percy Street	Surface water running up the footway, off the road, into the garden and through the rear door of the property. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-213	
10 August 2018	Lincoln Allenby Close	Surface water flooding came straight through the front door of the property. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-214	

Lincolnshire County Council Section 19 Investigations - North Kesteven District Council & South Kesteven District Council Network Area - Area Highways Rowan Smith (West)													
Duty to Investigate													
Section 19 Investigations													
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 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 EA	On-going	Feasibility and Design 2016/17 Possible works 2017/18	S19-048	
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 EA	On-going	Feasibility and Design 2016/17 Possible works 2017/18	S19-048	
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 - new model to be checked.	No	LCC AW	On-going	Summer 2017	S19-053	
28 June 2012	Thorpe Tilney Village Sleaford Road, Hallams Lane, Church Lane	Surcharging of open watercourses and assumed restrictions within culverted sections. Surcharge of public surface and foul water systems.	Unconfirmed - pre feasibility report mentions 8 properties.	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 Threemingham 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	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
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	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 Invst 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. Following further investigation the classification of the AW sewer is currently under review.	No	LCC AW	On-going	Summer 2019	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		S19-131
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 ingestion 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 system was to take place and CCTV survey to continue. Local Lead Flood Authority, Anglian Water and Lincolnshire County Council as Highway Authority to continue liaison and monitoring of the area. Upon publication of the Environment Agencies catchment study all risk Management Authorities 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 completed 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 system was to take place and CCTV survey to continue. CCTV survey to continue. County Council as the Highway Authority to carry out a full level survey of the road levels to see if any accommodation/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 LCC.	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 ingestion 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 system was to take place and CCTV survey to continue. Local Lead Flood Authority, Anglian Water and Lincolnshire County Council as Highway Authority to continue liaison and monitoring of the area. Upon publication of the Environment Agencies catchment study all risk Management Authorities 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 completed by 31/03/2017.	LCC - Yes Anglian Water - Yes	Anglian Water repaired the culvert and jetted the system, the area continues to be monitored. CCTV survey to continue. County Council as the Highway Authority to carry out a full level survey of the road levels to see if any accommodation/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 LCC Highways to provide a water check across the frontage.	No	LCC Anglian Water	On-going	Summer 2017	S19-162
24 August 2015	Long Bennington Main Road Vicarage Lane Welbourns 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	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. AW have cleansed their SW sewers.	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	The culverted watercourse does not have an adequate hydraulic capacity to accept the upstream run off. The route of the downstream public sewer system, with sharp changes of direction, could be a contributing factor to the flooding issues. Maintenance of existing system and further investigations into mitigation including improvements and other flood risk management options.	LCC W&DIDB (on behalf of LCC) Black Sluice (on behalf of SKDC) AW	Maintenance of existing system and further investigations into mitigation including improvements and other flood risk management options.			On-going		S19-170

28 June 2017	Grantham Dudley Road	Water entered into the basement of the property via the building structure. It appears that surface water gathers in a low point in the highway outside the property during heavy rainfall events, possibly exacerbated by inefficient surface water drainage. 1 property	1	Completed	It is the homeowners responsibility to maintain the coal hole and structure of the building to reduce the risk of water ingress. Further investigation into the condition of the highways drainage system is required.	LCC AW - Yes	CCTV completed at Dudley Road Surface Water Sewer which had some silt present but it has now been thoroughly cleaned.		LCC	On-going		S19-190
14 June 2016	Bourne Edenham Road	Surface water gathers at a low point on the carriageway opposite the property, which overflows into the property causing the property to internally flood. The situation is exacerbated by passing vehicles washing water over the verge and onto the adjacent land. 1 property	1	Completed	The cause of flooding is due to capacity issues with the whole system, this is exacerbated by wash from vehicles passing through the flooded carriageway during significant storm events onto adjacent land. The riparian owners to be made aware of their riparian responsibilities.	LCC	Further investigations into ownership of the existing drainage system to enable future maintenance. Inform resident of their riparian responsibilities.		LCC	On-going		S19-194
10 April 2018	Potterhanworth Station Road	Road closed due to flooding caused by surface water run off.		On-going	A job is planned for the 30.04.18 for a tanker and gang to attend site and clean the system.	LCC	A job is planned for a tanker and gang to attend site on the 30.04.18 to clean the system..		LCC	On-going		S19-131
02 June 2018	Leadenham Main Road High Street	Surface water flooding. 5 properties	5	On-going	TBC		TBC			On-going		S19-202
02 June 2018	Brant Broughton High Street	Surface water flooding. 1 property	1	On-going	TBC	TBC	TBC			On-going		S19-205
TBC	Billinghay Tattershall Road	Surface water flooding. The landlord reports that the cottage has been internally flooded on more than one occasion, the most recent being in the last week or so sometime in the w.c 9 June 2018. This is a repeat occurrence see S19-051. 1 property	1	On-going	TBC	TBC	TBC			On-going		S19-207
TBC	Brandon Church Lane	Surface water flooding. The property internally flooded sometime in the w.c. after 2 June 2018. 1 property	1	On-going	TBC	TBC	TBC			On-going		S19-208
02 June 2018	Stragglethorpe Church Lane	Surface water flooding. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-215
14 August 2018	Brant Broughton High Street	Surface water caused flooding to the front of the shop. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-218

Lincolnshire County Council Section 19 Investigations - Boston Borough Council & South Holland District Council Network Area - Area Highways Andy Wharff (South)													
Appendix A													
Duty to Investigate													
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	
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 exacerbated 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	Completed	The highway drainage system has been jetted and there are no blockages. It may be a capacity issue?		CCTV survey required.			On-going		S19-171	
10 June 2016	Spalding Little London	Surface water run off from the highway entered the property. 1 property	1	Completed	Further investigation into the condition of the drainage system is required involving riparian and highways authority responsibility.	TBC	TBC		TBC	On-going	TBC	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	Further investigations required to establish maintenance responsibilities and potential future works.			On-going		S19-169	
16 June 2016	Kirton Station Road	Flooding from rainfall and blocked drain. 3 properties	3	Completed	There appears to be a system in The Green, outside the Codfater, 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 Codfater however it is unlikely this had a major effect on the system.	BBC AW BSIDB LCC	Further investigations required to establish maintenance responsibilities and potential future works. AW will liaise directly with their customers to manage the sewer blockage by foreign objects.			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	Completed	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	BBC AW BSIDB LCC	Further investigations required to establish maintenance responsibilities and potential future works.			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 July 2016	Spalding Cathedral Drive	Surface water run off from the highway entered the property on two occasions. 1 property	1	Complete	The capacity of the highway drainage network is exceeded during extreme events. This is exacerbated by the condition of the riparian system in to which the highway drainage discharges.	LCC	Consider upgrading the current highway system. Further investigation is required into the provision of an overflow system.		LCC	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 on Mallard Road flooded again on 27 August 2016. 8 properties	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.		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	Completed	The footway falls towards the property and the property roof water discharges directly onto the footway.		Further investigations into the highways drainage system.			On-going		S19-191
Could be 10/6/2016	Deeping St Nicholas Coronation Avenue	Reported to LCC on 8 June 2017 1st property Ground water flooding caused the kitchen to flood. Water also entered the property through both sides of the fireplace and the front and back door. 2nd property: Parts of the property flooded - living room, kitchen, hall, all down stairs 3rd property: Surface water caused flooding to living room and front door leading to the stairway. 3 properties	3	On-going	Awaiting report		Awaiting report			On-going		S19-138
27 December 2017	Spalding Little London	Surface water run off entered the bar area of the pub. 1 property	1	Completed	Surface water run off flowed off the carriageway, across the footway which is a vehicular access and into the pub grounds, bypassing the footway gully, and entered through the side door into the bar area. The landlord has had recently changed the boundary fence , which was previously to ground level. The new fence has a small gap at the bottom which could be a contributing factor to water running into the pub grounds.	LCC	Raise Kerbs, Cleanse the system, and consider additional carriageway drainage	No	LCC	On-going		S19-197
TBC	Swineshead Coles Lane	Surface water flooding. 1 property	1	On-going	TBC		TBC			On-going		S19-200

27 July 2018	Surfleet Gosberton Road	Surface water flooding caused property to internally flood. Customer states that the gully and drains were blocked and compounded the problem. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-209
13 August 2018	Spalding Pennygate	Surface water flowed from the road, over the path and into the shop. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-216
13 August 2018	Kirton Station Road	Surface water flooding. 3 properties	3	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-217
13 August 2018	Gosberton Wargate Way	Surface water flowed over the pavement and into the property which is two meters from the highway. 1 property	1	On-going	Awaiting report	TBC	TBC		TBC	On-going		S19-219

Agenda Item 10



Policy and Scrutiny

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

Report to:	Flood and Water Management Scrutiny Committee
Date:	17 September 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.

Following the review of overview and scrutiny and decisions of the County Council, the Committee's the terms of reference are set out in Appendix B.

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

Appendix A	Flood and Water Management Scrutiny Committee – Work Programme
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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,

APPENDIX A**Flood and Water Management Scrutiny Committee**

17 SEPTEMBER 2018 – 10:00am		
Item	Contributor	Purpose
Environment Agency Update	Environment Agency	Updates to Committee on Environmental Agency Activities, including progress on key schemes.
Saltfleet to Gibraltar Point Strategy Update	Environment Agency	
National and Local Flood Risk Strategy Reviews progress reports	David Hickman, Growth & Environment Commissioner	
Humber Estuary Strategy Update	Helen Todd, Environment Agency	Update on the review of the management of flood risk impact to Lincolnshire from the Humber Estuary.
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

26 NOVEMBER 2018 – 10:00am		
Item	Contributor	Purpose
Environment Agency Update	Environment Agency	Updates to Committee on Environmental Agency Activities, including progress on key schemes.
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

11 FEBRUARY 2019 – 10:00am		
Item	Contributor	Purpose
Environment Agency Update	Environment Agency	Updates to Committee on Environmental Agency Activities, including progress on key schemes.

11 FEBRUARY 2019 – 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

28 MAY 2019 – 10:00am		
Item	Contributor	Purpose
Environment Agency Update	Environment Agency	Updates to Committee on Environmental Agency Activities, including progress on key schemes.
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
- 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

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