



County Offices
Newland
Lincoln
LN1 1YL

26 August 2015

Flood and Drainage Management Scrutiny Committee

A meeting of the Flood and Drainage Management Scrutiny Committee will be held on **Friday, 4 September 2015 at 10.00 am in Committee Room One, County Offices, Newland, Lincoln LN1 1YL** for the transaction of the business set out on the attached Agenda.

Yours sincerely

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

Tony McArdle
Chief Executive

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

Councillors C L Strange (Chairman), Mrs V C Ayling (Vice-Chairman), A M Austin, C J T H Brewis, A Bridges, M Brookes, R G Fairman, J R Marriott, C R Oxby, C Pain and R A Renshaw

Other Voting Members

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

**FLOOD AND DRAINAGE MANAGEMENT SCRUTINY COMMITTEE AGENDA
FRIDAY, 4 SEPTEMBER 2015**

Item	Title	Pages
1	Apologies/Replacement Members	
2	Declarations of Members' Interests	
3	Minutes of the previous meeting of the Flood and Drainage Management Scrutiny Committee held on 29 May 2015	5 - 14
4	Announcements by the Executive Councillor, Economic Development, Environment, Planning and Tourism and Senior Officers (Economy and Place)	
5	Anglian Water - Growth and the Impact on Infrastructure <i>(A report by Louise Tyers, Scrutiny Officer, which informs the Committee that Anglian Water will be making a presentation at the meeting on growth and the impact on infrastructure)</i>	15 - 16
6	Louth and Horncastle Flood Alleviation Schemes <i>(To receive a report by Deborah Campbell, Environment Agency, which outlines progress on implementing flood alleviation schemes for Louth and Horncastle)</i>	17 - 20
7	Environment Agency Consultation on the Future Management of the Black Sluice Drain and Pumping Station <i>(A report by Andy Jee, Project Manager, County Council and Deborah Campbell, Environment Agency, which informs the Committee of the Environment Agency's (EA) ongoing Black Sluice Catchment Consultation and how this may impact upon the future of the Black Sluice Pumping Station)</i>	21 - 32
8	Greater Lincolnshire Local Enterprise Partnership (GLLLEP) Coastal Vision and Water Management Plan <i>(A report by David Hickman, Environmental Team Leader (Strategy and Partnership), in which outlines recent initiatives led by the GLLLEP to develop a clear set of objectives for Lincolnshire's coastal areas and to establish a Water Management Plan as a channel for accessing a wider range of Government and European funding for flood risk and water resource management in Lincolnshire. The Committee's comments are sought on the first draft of the Coastal Vision)</i>	33 - 44
9	Investigations held under Section 19 of the Flood and Water Management Act 2010 <i>(A standing report by Mark Welsh, Flood Risk and Development Manager, on the position of all current Section 19 investigations in the County)</i>	45 - 68

10 Flood and Drainage Management Scrutiny Committee Work Programme

69 - 72

(A report by Louise Tyers, Scrutiny Officer, in connection with the latest position of the Committee's Work Programme)

Democratic Services Officer Contact Details

Name: **Steve Blagg**

Direct Dial **01522 553788**

E Mail Address steve.blagg@lincolnshire.gov.uk

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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Contact details set out above.

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**FLOOD AND DRAINAGE
MANAGEMENT SCRUTINY
COMMITTEE
29 MAY 2015**

PRESENT: COUNCILLOR C L STRANGE (CHAIRMAN)

Councillors A M Austin, C J T H Brewis, M Brookes, R G Fairman, D C Hoyes MBE, J R Marriott, C Pain and R A Renshaw

District Councillors R Austin (Boston Borough Council), I G Fleetwood (West Lindsey District Council), Mrs F M Martin MBE (East Lindsey District Council), J Money (North Kesteven District Council), B Russell (South Kesteven District Council) and M D Seymour (South Holland District Council)

External Agencies – Deborah Campbell (Environment Agency) and Alan Simpson (Anglian Water)

Councillors C J Davie and S M Tweedale, attended the meeting as observers

Officers in attendance:-

Steve Blagg (Democratic Services Officer), Paul Brookes (Principal Highways Officer), Hayley Harrison (Emergency Planning Assistant), David Hickman (Environmental Services Team Leader (Strategy and Partnership), David Powell (Head of Emergency Planning), Louise Tyers (Scrutiny Officer), Mark Welsh (Flood, Risk and Development Manager), Steve Willis (Chief Operating Officer) and Richard Wills (Executive Director for Environment and Economy)

1 APOLOGIES FOR ABSENCE/REPLACEMENT MEMBERS

Apologies for absence were received from Councillor A Bridges, District Councillor D Jackson, Sam Markillie (South Holland Internal Drainage Board) and David Sisson (Lindsey Marsh Drainage Board)

The Chief Executive reported that under the Local Government (Committee and Political Groups) Regulations 1990, he had appointed Councillors C E D Mair and D C Hoyes to the Committee in place of Councillors Mrs V C Ayling and R Oxby, respectively, for this meeting only.

2 DECLARATIONS OF MEMBERS' INTERESTS

Councillor C J T H Brewis requested that a note should be made in the minutes that he now represented the County Council on the Local Government Association's Coastal Group.

2

**FLOOD AND DRAINAGE MANAGEMENT SCRUTINY COMMITTEE
29 MAY 2015**

3 MINUTES OF THE PREVIOUS MEETING OF THE FLOOD AND
DRAINAGE MANAGEMENT SCRUTINY COMMITTEE HELD ON 27
FEBRUARY 2015

RESOLVED

That the minutes of the previous meeting of the Flood and Drainage Management Scrutiny Committee held on 27 February 2015, be agreed as a correct record and signed by the Chairman, subject to the deletion of the additional "Read" which appears twice in Resolution (b) (minute 37).

4 ANNOUNCEMENTS BY THE EXECUTIVE COUNCILLOR, ECONOMIC
DEVELOPMENT, ENVIRONMENT, PLANNING, TOURISM AND SENIOR
OFFICERS (ECONOMY AND PLACE)

Executive Councillor C J Davie welcomed new members appointed to the Committee following the District Elections on 7 May 2015 and the annual meeting of the County Council on 15 May 2015. He welcomed Executive Support Councillor Stuart Tweedale who would be supporting him on his portfolio. He also took the opportunity to congratulate ex-Councillor J Churchill who had supported him as Executive Support Councillor on her success to being elected Member for Parliament for the Bury St Edmunds constituency.

Executive Councillor C J Davie stated that following the re-appointment of Elizabeth Truss MP as the Secretary of State for Environment, Food and Rural Affairs he had invited her to Lincolnshire to hear about the challenges which faced Lincolnshire to protect the coast and coastal defences. There was a need to find funding to protect valuable farmland in Lincolnshire and supported the comments made by George Eustace, MP, Minister of State at the Department for Environment, Food and Rural Affairs, on the need for the UK to produce more of its own food.

5 EMERGENCY EVACUATION ROUTE SIGNAGE

(Councillor I G Fleetwood arrived in the meeting).

The Committee received a report in connection with emergency evacuation route signage from those areas of the county subject to severe coastal flooding. Officers stated that the decision to approve the signage had been delegated to the Executive Councillor P Robinson, who had, amongst others, responsibility for this area.

Comments made by the Committee included:-

1. The lack of discussion about the risks involved for example. there had not been a major flooding event in South Holland since 1810 and therefore was it worth all of the effort to erect signs.
2. There was a danger of erecting signs and for them not to be used for many years which could lead to ridicule from the public.

3. The direction of travel by the public in the south east of the county shown on the maps was incorrect as it showed the need for the public to travel to Bourne instead of Kings Lynn which was more suitable.
4. Some communities had been omitted from the maps in the south east of the county, e.g. The Deepings and Holbeach.
5. Vandalism of signs was a possibility as this happened in Halifax during the hot summer of 1976.
6. Local communities already knew the best routes and therefore signage was not needed.
7. Coastal protection needed to be examined.
8. Many tourists visited the coast and were not familiar with the geography of the area.
9. The effects of the flooding incident in France in 2010 needed to be considered.
10. The cost of the signage was small.
11. Were there any plans to install evacuation routes in Sat Navs?
12. There were many vulnerable people living in the Boston area that had not any means of evacuating themselves.
13. There were fewer tourists in the autumn and winter in the UK compared to Florida during their winter.
14. The signs should not be permanent because of new development.
15. There was a need to examine secondary sea defences.
16. New housing had been built in the flood zone with no access to roof space.
17. The use of photovoltaic lighting for the signs should be considered.

Officers' responses to the Committee's comments included:-

1. Planning for a major 1:200 multi-event flooding event was important and followed advice from the Environment Agency.
2. Lessons had been learnt from the French floods in 2010 where overtopping had led to deaths.
3. The evacuation routes in the south east of the county had been chosen by consultants but concerns by the Committee about direction of travel and the inclusion/omission of some routes would be raised with the consultants and a response given to the Committee.
4. The use of technology, e.g. Sat Navs, was being examined by the Government and a response would be given to the Committee.
5. The Environment Agency was examining the cost of reinstating secondary sea defences and South Holland District Council was a pilot for this development.
6. The evacuation signage was required to protect the public.
7. The first priority was to evacuate people living in single storey buildings and located immediately behind the sea defences.
8. People needed to be educated about the risks which would increase as climate change took place.
9. The evacuation signs would be kept in place from November to March.

Executive Councillor C J Davie stated that he supported the proposals in the report adding that the Council had responsibility to protect its citizens; stated that there was a need to increase the economy on the coast and to extend the holiday season; that the Executive Councillors having responsibility for highways and emergency planning

**FLOOD AND DRAINAGE MANAGEMENT SCRUTINY COMMITTEE
29 MAY 2015**

supported the proposals and that it was wrong for District Planning Authorities to build social housing in flood zones contrary to the advice of the Environment Agency.

RESOLVED (Note: Councillor I G Fleetwood did not vote as he had arrived in the meeting during consideration of this item)

That the Committee fully supports the recommendation to the Executive that the County Council (as Highways Authority) invests in the pre-production, installation and maintenance of signage along pre-defined routes on a permanent basis, in order to facilitate a safe and effective self-evacuation strategy that maximises public and responder safety whilst allowing the most efficient use and prioritisation of responding resources during a coastal flood emergency, subject to the comments made by the Committee being noted, including those relating to evacuation routes in the south east of the county and the use of Sat Nav.

6 LOUTH AND HORNCastle FLOOD ALLEVIATION SCHEMES

The Committee received a report in connection with progress made towards implementing flood alleviation schemes for Louth and Horncastle.

Before consideration of the report the Chairman stated that he did not propose to allow the public to speak on this application, that the Committee could only scrutinise the proposals to protect Horncastle and it was not in the Committee's remit to consider compensation for landowners which was entirely for landowners to discuss separately with the Environment Agency.

Officers stated that planning permission had now been given for the Louth scheme and that the Water Voles had been successfully removed.

With regard to Horncastle, officers stated that the outcome of the planning application was awaited, that flood protection of property was now complete, that a lot of work was on-going in connection with this scheme and agreed to circulate the responses from the Environment Agency to questions asked by landowners which had been read out to the Committee.

Councillor W J Aron, the local Member for Horncastle, supported the flood alleviation measures, requested that the issues raised by the landowners were addressed and that the scheme was now completed as quickly as possible.

Comments made by the Committee included:-

1. The work done by Robert Caudwell in providing advice on the flood alleviation scheme in Horncastle was appreciated.
2. The landowners and farmers were an important and integral partner in the Horncastle scheme and it was important that the negotiations between them and the Environment Agency were expedited and resolved as soon as possible.
3. It was important that the landowners and farmers were properly compensated and that the people of Horncastle received flood protection as quickly as possible.
4. How effective was the material being used to build the dam?

5. Should there be any problems with compensation payment to landowners and farmers then the newly elected Member of Parliament for Louth should be approached as the matter would need to be raised with the EU because this was not the Committee's responsibility.

Officers stated that the design of the dam embankment and the materials used met national engineering standards.

RESOLVED

(a) That the Committee support the roll out of flood alleviation schemes for Louth and Horncastle but are concerned at the points made by local landowners (with the exclusion of compensation matters, which is not the Committee's concern) but in the Committee's scrutiny role, the Committee sends the strong message, that it supports cooperation between interested parties on all schemes.

(b) That details of the responses by the Environment Agency to questions from landowners and farmers, read out to the Committee, be circulated to the Committee.

7 BOSTON BARRIER

The Committee received a report in connection with progress on work to develop a tidal flood barrier in Boston.

Officers explained why the Water Level Management had been removed from the current scope of the barrier project following consultation with the County Council and due to its complexities it would now be delivered through the Fens Waterways Link in the future.

Comments made by the Committee included:-

1. Water Level Management was a long term aspiration and flood protection was a priority.
2. Implications of the Water Level Management not proceeding at this time on Boston and other facilities on the River Witham, i.e. the Fishermen's Quay and lock.
3. Could the "wash" areas outside Boston cope with excess water from heavy rain and a high tide?
4. Would boats be able to exit the River Witham into the Haven and then into the Wash?
5. Had the Environment Agency examined installing a causeway across to Norfolk?
6. The installation of a lock would help to control the amount of water flowing into the Haven and therefore reduce the risk of flooding.

Officers' responses included:-

1. The main priority was to ensure that Boston was protected from flooding. Discussions would take place with Boston Borough Council and partners on how to improve economic regeneration in Boston, including the Lock.

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FLOOD AND DRAINAGE MANAGEMENT SCRUTINY COMMITTEE 29 MAY 2015

2. The Fishermen's Quay was going to have to be relocated down river from the Barrier but now, without funding from the Water Level Management, this was going to be costly. This expense would not have been met by DEFRA money as that was only for flood prevention.
3. The cost of installing a Lock was high and part of the £11m allocation for Water Level Management would have funded moving the fishermen's fleet. No flood risk money was being used for its relocation.
4. Excess rainfall clashing with a tidal surge had been examined and the probability of this happening was very low.
5. The "wash" areas outside of Boston had the capacity to deal with any excess water.
6. It would be possible to take a boat, with a mast, out of the River Witham to the Haven and then onto the Wash but it would be necessary to raise the barrier.
7. The installation of a causeway to Norfolk had been investigated and was too expensive.

RESOLVED

That the report and comments made by the Committee be noted.

8 RIVER STEEPING UPDATE

The Committee received a report in connection with progress on assessing the options for reducing flood risk in the Steeping catchment, in particular local aspirations for de-silting works.

Officers stated that since the initial results of the updated modelling work this had raised doubt over the cost effectiveness of the proposed de-silting works. The modelling work to confirm the way forward was on-going but for a variety of reasons, including the shortage of hydrologists, the results were not expected until early June. The risk from overtopping was not significant.

Comments made by the Committee included:-

1. What were the Environment Agency's future plans for flood alleviation?
2. The Venables's report about the flooding in the Somerset Levels needed to be examined and taken into consideration in connection with the River Steeping.
3. The advice provided by the Internal Drainage Board to the Environment Agency in connection with 1:50 protection of properties along the banks of the River Steeping had not been used by the Agency.
4. It was thought that Robert Caudwell had identified a funding stream to carry out the de-silting work.
5. Local residents had been informed in public meetings that the problems of the River Steeping would be solved.
6. It was important that any decision for the River Steeping was based on evidence.
7. The Environment Agency should provide a list of schemes which had greater priority than the River Steeping scheme.

Officers' responses included:-

1. Coastal protection was the main priority for the Environment Agency and a six year programme was outlined.
2. It was possible to release more water down the River Steeping to help with de-silting.
3. Work was on-going with farmers to reduce the amount of silt entering the River Steeping.
4. The stability of the banks of the River Steeping was being examined.
5. It was important that the use of resources was based on evidence and risk.

District Councillor Mrs F M Martin MBE requested that as a representative from East Lindsey District Council she should be kept informed of meetings involving the River Steeping and this was noted.

RESOLVED

That the report and comments made by the Committee be noted.

9 INVESTIGATIONS UNDERTAKEN UNDER SECTION 19 OF THE FLOOD AND WATER MANAGEMENT ACT 2010

The Committee received a standard report on the position of all current Section 19 investigations in the county. Officers stated that the report now only included information in connection with only those sites where investigations had not yet been completed.

Comments by officers included:-

1. Keelby (Eastfield) - Anglian Water were trying to identify drains in the village of Keelby.
2. Gainsborough (various roads) – investigations of the problems had been undertaken in conjunction with Severn Trent, advice provided to local residents and the work had been completed by highways.
3. Horncastle (various roads) – a bid had been submitted for funding and work was on-going to solve the problem.

With regard to Horncastle, the Committee stated that it would be useful to have a timescale for the flood alleviation work, the need for consultation with all local Councillors and home owners on the effects on infrastructure from development. In this respect, officers agreed the need to examine the effects of development on infrastructure in Horncastle and Anglian Water agreed to give a presentation to the next meeting of the Committee on this subject.

RESOLVED

(a) That the report and comments made by the Committee be noted.

(b) That Anglian Water give a presentation to the next meeting of the Committee on the effects of development on infrastructure.

10 NEW DEVELOPMENTS AND THEIR IMPACT ON WATER MANAGEMENT

The Committee received a presentation in connection with proposals for delivering Sustainable urban Drainage systems (SuDs) and changes to the statutory planning consultation process.

Officers stated that since the introduction of the Flood and Water Act 2010, there had been changes to the legislation which affected the role of Lead Local Flood Authorities (LLAF) which involved changes to the statutory consultation process. Schedule 3 of the Act (to establish SuDs Approving Body (SAB), responsible for adopting and maintaining SuDs, and Highway authorities responsible for maintaining SuDs in public roads, to national standards), had now been revoked. The LLAF would now become a statutory consultee in relation to surface water flood risk (only) for Major Development and consultation on flood risk relating to surface water, groundwater and ordinary watercourses for all development to be subject to local arrangements by the Local Planning Authority.

Officers stated that a training event had been held with Local Planning Authorities in the county and with developers to discuss the new arrangements and the new arrangements came into effect on 6 April 2015.

Comments made by the Committee included:-

1. It would be useful to have a County Council representative on each of the Internal Drainage Boards which would help with the feedback of information and also help with co-operation with partners.
2. What areas did SuDs cover?
4. The setting up of Management Companies to maintain development.
5. The effects on householders if a Management Company disappeared?
6. Would Internal Drainage Boards be required to impose a levy on new developments?
7. Management of surface water arising from new housing developments.
8. Historical problems associated with the management of surface water from developments and problems with flooding.

Officers' responses included:-

1. SuDs were applicable to all areas.
2. The use of Management Companies to maintain surface water was a contentious issue but the County Council had been advised by the District Councils that the current arrangements were adequate. The County Council and Anglian Water needed to be in a position to be able to adopt any provision for the maintenance of surface water.
3. The best Management Companies always involved local residents.
4. Internal Drainage Boards received additional funding for new developments.

5. There now a much better understanding of the over land flow of water which could now be reported to the District Planning Authorities.

It was agreed that the presentation by officers be sent to the Committee.

RESOLVED

(a) That comments made by the Committee and responses given be noted.

(b) That the presentation given at today's meeting be sent to the Committee.

11 FLOOD AND DRAINAGE MANAGEMENT SCRUTINY COMMITTEE WORK PROGRAMME

The Committee received a report in connection with its Work Programme.

RESOLVED

That the Committee's Work Programme be noted and updated accordingly, subject to the following items being added:-

1. A presentation by Anglian Water in connection with the effects of development on infrastructure. (4 September 2015)
2. Initiative with Farmers and riparian owners in the south east of the county. (Future meeting to be agreed)
3. Black Sluice Pumping Station (4 September 2015)

The meeting closed at 12.45 pm

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Policy and Scrutiny

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

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	4 September 2015
Subject:	Anglian Water – Growth and the Impact on Infrastructure

Summary:

This report informs the Committee that Anglian Water will be making a presentation at the meeting on growth and the impact on infrastructure.

Actions Required:

To consider and comment on the presentation.

1. Background

Representatives of Anglian Water will be making a presentation to the meeting of the Flood and Drainage Management Committee. The presentation will provide an update on Anglian Water and their engagement in Planning and will include reference to some of their regulatory/legislative constraints.

2. Conclusion

To consider and comment on the presentation.

3. Consultation

a) Policy Proofing Actions Required

Not applicable.

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 Louise Tyers, who can be contacted on 01522 552102 or louise.tyers@lincolnshire.gov.uk.

Policy and Scrutiny

Open Report on behalf of Phil Younge, Area Manager Lincolnshire & Northamptonshire, Environment Agency

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	4 September 2015
Subject:	Louth and Horncastle Flood Alleviation Schemes

Summary:

To outline progress on implementing flood alleviation schemes for Louth and Horncastle.

Actions Required:

To consider and comment on progress made towards implementing flood alleviation schemes for Louth and Horncastle.

1. Background

Louth and Horncastle have suffered historic flooding from main rivers, most recently in 2007.

Louth is a “rapid response” catchment situated on the River Lud with a low standard of protection from flooding. The preferred flood risk management option is to build two flood storage reservoirs to reduce flood risk to homes and businesses in Louth.

Horncastle is situated on the confluence of the rivers Bain and Waring. Flooding occurs due to high flows in both watercourses. The town has a significant number of properties with a low standard of protection. Flood events have been recorded in 1920, 1960, 1981, 1993 and 2007. The preferred option is to build a flood storage reservoir on the River Bain and individual property protection for those at risk from the River Waring.

In March 2009 it was concluded that external contributions would be necessary to make any scheme viable. A partnership approach to funding was therefore adopted by; The Environment Agency, Lincolnshire County Council, East Lindsey District Council, Lindsey Marsh Drainage Board and the Witham Third Drainage Board to deliver flood storage schemes at both locations. Both Town Councils have agreed in principle to fund future maintenance of the completed schemes.

Key Information

	Louth	Horncastle
Current probability of Main River flooding in any year	5% (1in20)	10%(1in10) Bain 20%(1in5) Waring
Probability following construction works*	0.67% (1in150)	1% (1in100)
Number of properties benefiting from scheme	355	288
Estimated construction completion	May 2016	2016
Capital Cost including contingency (today's prices)**	£6.5 million	£8.2 million

* the figure quoted for annual probability of river flooding post-construction works is based on current river flows. For Louth, the probability is expected to increase to 1.25% (1in80) over the 100 year life of the scheme based on the latest climate change guidance. We have not yet undertaken the climate change calculations for Horncastle but similar changes should be expected.

** includes additional £430,000 acceleration funding, secured for potential Property Level Flood Protection (PLFP) works.

The last Project Board meeting date 11 August 2015 was used to have a media event to mark the start on site for both these projects.

Louth

Work started on site in July. The archaeological investigations did not reveal anything of interest. Site compound and fencing is complete and work has started on stripping topsoil.

We are continuing our negotiations with landowners to agree purchase and compensation values for the land we are likely to impact on as part of this scheme.

Horncastle

Work started on site in July. The archaeological investigations revealed some timber posts most likely to be part of an iron age bank revetment. An archaeological mitigation strategy has been prepared and agreed with the County Archaeologist. Part of the area of interest falls underneath the footprint of the dam and this area will be excavated first before progressing onto the borrow pit. At this stage it is difficult to quantify the impact of these finds on the programme. If necessary, a revised programme will be reported in the next paper. Top soil stripping and excavations in other areas of the site are continuing in line with the original programme.

We are nearing agreement with the landowners for the purchase of the embankment footprint and are continuing negotiations with landowners regarding flood easement compensation.

2. Conclusion

Construction work has commenced at both Louth and Horncastle. Archaeological investigation has found timber items at Horncastle which will cause a delay to the programme. It is not possible to identify the length of the delay but the mitigation strategy has been developed to keep any delay to a minimum.

3. Consultation

a) Policy Proofing Actions Required

Not applicable

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 Deborah Campbell, who can be contacted on (01522) 784387 or deborah.campbell@environment-agency.gov.uk

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Policy and Scrutiny

Open Report on behalf of Richard Wills, Executive Director for Environment & Economy and Phil Younge, Area Manager Lincolnshire & Northamptonshire, Environment Agency

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	04 September 2015
Subject:	Environment Agency Consultation on the Future Management of the Black Sluice Drain and Pumping Station

Summary:

This report is to inform the Committee of the Environment Agency's (EA) ongoing Black Sluice Catchment Consultation and how this may impact upon the future of the Black Sluice Pumping Station and the implications relating to the establishment of Boston as a waterways destination. The consultation will run until 27th September 2015 and the EA have set up a number of public consultation events. The briefing note for the consultation is attached to this report (Appendix A) and details of the consultation events are also attached (Appendices B & C).

Actions Required:

1. That the Committee are made aware of the consultation process and are enabled to make informed decisions about their response to it.
2. That the Committee approve the proposal for a single co-ordinated response from the County Council.

The LCC response to this consultation will be approved by Councillor Colin Davie, Executive Member for Economic Development, Environment, Planning and Tourism and Councillor Lewis Strange, Chairman of the Flood and Drainage Management Scrutiny Committee. Members wishing to contribute to this response should do so in writing and forward their responses to Amanda Manns at amanda.manns@lincolnshire.gov.uk by Friday 11th September 2015.

1. Background

The Environment Agency Consultation

The Black Sluice, also known as the South Forty Foot Drain, drains a catchment covering from Boston, west to Sleaford and south to Bourne. A map of the area can be seen in the attached Environment Agency Briefing Note at Appendix A. The

majority of the 500+ miles of drains and channels within this catchment are managed by the Black Sluice Internal Drainage Board but the main drain, the South Forty Foot Drain and its tributaries, is managed by the Environment Agency.

The catchment ends at the Black Sluice where the South Forty Foot Drain discharges into the Haven. The Black Sluice complex includes the Black Sluice Pumping Station and two gravity discharge sluices at London Road, Boston (one of the sluices doubles as a navigation lock). On a day to day basis the South Forty Foot Drain discharges naturally by gravity flow during the lower half of the tidal range. When flow rates from the catchment area are high, and the sluices are tide locked, the gravity discharge is supplemented by pumping via the Black Sluice Pumping Station. This facility has five pumps with a total pumping capacity of up to 60 cubic metres of water per second (cumecs). It was built 69 years ago initially with a capacity of 30 cumecs and upgraded approximately 20 years later to its current capacity.

The pumps in the Black Sluice Pumping Station are coming to the end of their life and three of the five were damaged by the tidal flooding in December 2013 and are no longer in use. The EA estimates the cost of replacing one or two pumps to be £5-£10million.

The EA are therefore undertaking a study of the catchment area and how its drainage is managed. This study will inform the business case as to whether to replace the pumps and/or carry out other works to manage water levels and provide adequate protection from flooding to properties, farmland and other assets in the catchment area. Modelling by two independent consultants to the EA and property threshold surveys, have shown that no homes are put at increased risk of flooding if the pumping station at Black Sluice did not operate. The pumps do provide some flood protection to 178 hectares of farmland in a 1 in 10 chance flood event (in a slightly rarer, 1 in 20 chance event, this land is at risk of flooding with or without pumping).

Due to no properties and limited agricultural land benefitting from a reduction in flood risk as a result of the pumping station, the EA is unable to fund this from Flood Defence Grant in Aid. The EA is therefore seeking partnership funding from other organisations with an interest in keeping the pumping station operational.

The EA's management options for the Black Sluice under consideration are therefore:

Black Sluice Pumping Station Options	Lower Catchment Options	Upper Catchment Options
Do Nothing	Do Nothing	Do Nothing
Do Minimum – Removing the pumps	Do Minimum – Continue with current maintenance	Do Minimum – Continue with current maintenance
Replacing the pumps: <ul style="list-style-type: none"> - 2 pumps (current capacity: 30 cumecs) - 1 pump (15 cumecs) 	Make flood products (known as 'property level flood protection') available to homes most at risk	'Slowing the flow' upstream to hold water back

	Protecting low points along the raised banks from erosion	Increased channel maintenance
		Make flood products (known as 'property level flood protection') available to homes most at risk
Transfer to Black Sluice IDB		

As can be seen from the above table in parallel with this process the EA are also considering handing over the management of the Black Sluice to the Black Sluice Internal Drainage Board and their response to the consultation and the transfer of responsibility for the management of the Black Sluice is attached to this report (Appendix D).

LCC response – potential impacts of the Black Sluice Catchment Management Review

The level and duration over which water can be impounded in the Haven (Water Level Management or WLM) by the proposed Boston Flood Barrier are limited by the need to discharge from incoming waterways such as the River Witham and the Black Sluice. The levels and duration of WLM are important as recognised in the economic studies undertaken by Richard Glenn Associates in 2014/15 which looked into Boston's potential growth as a waterways destination and indicated that water levels in the Haven would have to be managed above the level of the Black Sluice throughout the boating season for Boston to see significant benefits. This is to enable boats to pass through Boston without having to negotiate tidal currents and to make bankside mooring possible. The aspiration to impound water in the Haven permanently throughout the boating season to accommodate boats for passage and to moor up overnight to establish Boston as a waterways destination would require the Black Sluice to either be pumped out into the Haven or for an alternative route found for it to discharge downstream of the Boston Barrier (or a combination of both). For this aspiration to be attainable it is essential that the future management of the Black Sluice and the method(s) by which it discharges into the Haven do not limit the options for Water Level Management.

2. Conclusion

The Committee's views are sought on the EA consultation on the future management of the Black Sluice catchment and Pumping Station and support is recommended for a single co-ordinated LCC response to:

- a. Protect the existing levels of flood protection throughout the catchment.
- b. Recognise outcomes that support the aspirations of the Council for Water Level Management in the Haven.

3. Consultation

a) Policy Proofing Actions Required

n/a

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Environment Agency Briefing Note – 'Managing the Risk of Flooding: Black Sluice Catchment'
Appendix B	Environment Agency Consultation Event at Rippingale
Appendix C	Environment Agency Consultation Event at Bicker
Appendix D	Black Sluice Internal Drainage Board Response to the Consultation

5. Background Papers

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document Title	Where the document can be viewed
Boston Barrier Water Level Management Economic Benefit Analysis Report January 2015 – Richard Glen Associates	http://lincolnshire.moderngov.co.uk/documents/s8976/Boston%20Barrier%20-%20Appendix%20E.pdf
Boston Barrier Opportunities before Water Level Management Report January 2015 – Richard Glen Associates	http://lincolnshire.moderngov.co.uk/documents/s8977/Boston%20Barrier%20-%20Appendix%20F.pdf

This report was written by Andy Jee and Deborah Campbell, who can be contacted on 01522 555215/01522 784387 or andrew.jee@lincolnshire.gov.uk / Deborah.campbell@environment-agency.gov.uk



Managing the risk of flooding: Black Sluice Catchment

July 2015

This briefing note explains how we are working with partners and local communities to manage flood risk in the Black Sluice Catchment, also known as the South Forty Foot Catchment. We are carrying out a formal consultation between 17 August and 27 September 2015 about what could be done to help and we'd really like to know what you think.

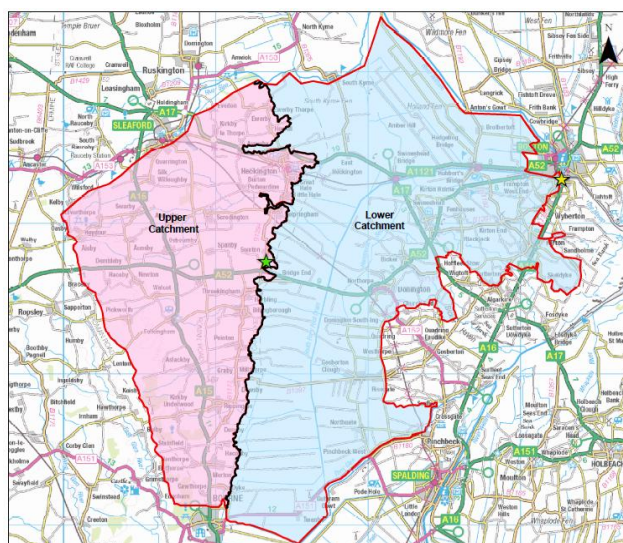
What is the background to this?

A study of this catchment started back in 2012 to review how flood risk is managed and to prepare a business case to refurbish the Black Sluice pumping station on London Road in Boston. After gathering evidence and running updated computer models, it became clear that the pumping station provides very little reduction in flood risk to people and their homes and offers only a small reduction in flood risk to agricultural land. This makes it difficult to attract government funding available to the Environment Agency.

The pumping station was built 69 years ago to pump water from the South Forty Foot Drain into the Witham Haven in Boston when the river is tide-locked. The pumps are used for hours totalling only around three days each year - because most of the water flows out naturally to the sea at low tide. The five pumps are at the end of their working life.

Sixteen homes were identified as potentially affected if the pumps did not operate, however detailed surveys have been carried out at all (updated in August from 13 properties) of the properties and it has been proven that they will not be at increased risk of flooding.

The study has looked at what additional activity might take place to help manage flood risk – on top of the regular maintenance that we carry out e.g. weed cutting and de-silting of the South Forty Foot Drain, and also land drainage activity by Black Sluice Internal Drainage Board (IDB). There are a number of opportunities that are emerging as 'options' that we would like to share with you. We feel these are likely to make the most difference to help manage the risk of flooding here in the future.



What are the options?

After holding a workshop with partners and sharing our initial list informally with communities to seek their views earlier this year we now have a short list of options. It is these options that we are now formally consulting people about.

There are different options for the upper and lower catchment - see reverse. It is likely that a combination of options would have the most additional impact. More details, including advantages and disadvantages, can be found in the consultation document.

Black Sluice Pumping Station Options	Lower Catchment Options	Upper Catchment Options
Do Nothing	Do Nothing	Do Nothing
Do Minimum – Removing the pumps	Do Minimum – Continue with current maintenance	Do Minimum – Continue with current maintenance
Replacing the pumps: - 2 pumps (current capacity: 30 cumecs) - 1 pump (15 cumecs) Updated to 2 options on 3 Aug	Make flood products (known as ‘property level flood protection’) available to homes most at risk	‘Slowing the flow’ upstream to hold water back
	Protecting low points along the raised embankments from erosion	Increased channel maintenance downstream of villages
		Make flood products (known as ‘property level flood protection’) available to homes most at risk
Transfer to Black Sluice IDB		

Who have you been working with?

The key partners we are working with are Black Sluice IDB and Lincolnshire County Council – the main organisations who have some responsibilities to help manage flood risk here. Other organisations have also been involved in a workshop with us e.g. Borough and District Councils, Forestry Commission, Natural England and Anglian Water.

How can I share my views with you?

The consultation is taking place between 17 August and 27 September. We would like to know which of the options you think would be most effective to improve how flood risk is managed and why, as well as any other thoughts you may have. Your views are important to us and will influence which of the options are progressed further. You can come and talk to us and officers from Black Sluice IDB between 1pm and 8pm at: Billingborough Village Hall on 25 August, Rippingale Village Hall on 10 September and Bicker Village Hall on 22 September. We will also be at the Black Sluice IDB offices, Station Road, Swineshead, PE20 3PW between 10am and 3pm on: 17 August, 1 September and 14 September.

The consultation document can be accessed online here from 17 August:

<https://consult.environment-agency.gov.uk/portal/>

You can also email your comments to:

BlackSluiceCatchment@environment-agency.gov.uk

There are also copies available for you to take away at your local district or borough council offices in Boston, Grantham, Sleaford and Spalding. Alternatively, please call 01522 785904 for a hard copy to be posted to you, along with a freepost envelope, for you to share your views.

What happens next?

The consultation responses will be analysed to help build a business case to apply for funding. Please let us know within your consultation response if you would like to be kept updated on progress by email.

How do I know if my property is at risk of flooding?

Find out if your property is at risk of flooding from the rivers or sea by calling Floodline on 0345 988 1188 or look online www.gov.uk/flood. You may be able to register for free flood warnings to let you know when flooding is expected that could affect your home.

I have a question...

Please contact the Project Team by email BlackSluiceCatchment@environment-agency.gov.uk or call 01522 785904.



Have your say on how
flood risk is managed

Rippingale
Village Hall, 10 Sept,
1pm - 8pm

A formal consultation about Black Sluice catchment is taking place between 17 Aug and 27 Sept 2015. Comment online from 17 Aug: www.gov.uk/environment-agency or call 01522 785904 for a hard copy.

We will also be at Black Sluice IDB offices, Swineshead, between 10am and 3pm on 17 Aug, 1 and 14 Sept.

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Have your say on how
flood risk is managed

Bicker Village Hall,
22 Sept, 1pm - 8pm

A formal consultation about Black Sluice catchment is taking place between 17 Aug and 27 Sept 2015. Comment online from 17 Aug: www.gov.uk/environment-agency or call 01522 785904 for a hard copy.

We will also be at Black Sluice IDB offices, Swineshead, between 10am and 3pm on 17 Aug, 1 and 14 Sept.

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To All interested parties:-

You will be aware of the Public Consultation information attached, please find the Black Sluice IDB's 'preferred options' below:-

- All Environment Agency (EA) main river assets within the Black Sluice Catchment transferred to the Black Sluice Internal Drainage Board (BSIDB) in good working order over an agreed timeframe.
- The uncompleted South Forty Foot Drain (SFFD) widening/water flow enhancements works to be completed by the EA.
- The EA to repair the old pumps and/or install new electric pumps at Black Sluice Pumping Station (BSPS) in order to provide a combined 60cumecs pumping capacity.
- DEFRA financial grants awarded to BSIDB and/or a reduction in the EA Precept to assist with the additional maintenance costs associated with the BSPS and main rivers following the asset transfer over an agreed period of time (c5 years).
- BSIDB to undertake all main river maintenance works for the EA within their Public Sector Co-Operation Agreement (PSCA) until a time the transfers are complete.

Should you require any further information please do not hesitate in contacting me.

Kind Regards,

Ian Warsap

Chief Executive,
Black Sluice Internal Drainage Board,
Station Road,
Swineshead,
Boston,
Lincs.
PE20 3PW

T: 01205 821440

M: 07854 141886

ian.warsap@blacksluiceidb.gov.uk

www.blacksluiceidb.gov.uk

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Open Report on behalf of Richard Wills - Executive Director of Environment and Economy

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	04 September 2015
Subject:	GLLEP Coastal Vision and Water Management Plan

Summary:

This report outlines recent initiatives led by the Greater Lincolnshire Local Enterprise Partnership (GLLEP) to develop a clear set of objectives for Lincolnshire's coastal areas and to establish a Water Management Plan as a channel for accessing a wider range of Government and European funding for flood risk and water resource management in Lincolnshire. A first draft of the Coastal Vision is presented for members to consider and on which their comments and views are invited. The report concludes by outlining timescales and process for completing both pieces of work.

Actions Required:

To consider and comment on the draft Coastal Vision (version 1.1), attached as Appendix A.

To note the timetable for completing the Coastal Vision by March 2016.

1. Background

The Greater Lincolnshire Local Enterprise Partnership (GLLEP) has prioritised agri-food and the visitor economy as the key sectors for economic growth in Lincolnshire, North East Lincolnshire and North Lincolnshire. Effective flood risk and water resource management is considered a fundamental element in realising these opportunities. The GLLEP has therefore established a Water Management Board, reporting to the LEP Board.

The Water Management Board is responsible for developing a Water Management Plan during 2015 with clear objectives and actions to achieve economic growth through water management.

GLLEP Water Management Plan

While flood and drainage risk management is well understood and catered for by the present partnership in the Joint Lincolnshire Flood Risk and Drainage

Management Strategy, there is currently no equivalent approach to managing water resources, beyond the strategic and operational responsibilities of the Water and Sewerage Companies.

A GLLEP Water Management Plan is therefore being developed to promote alignment between the well-developed flood risk agenda and a broader approach considering water supply and management in the interests of promoting business sustainability and opportunities for further expansion. In particular it will act as a channel opening up access to a wider range of funding streams, through the GLLEP, to enable strategic scale flood risk and water management schemes.

The scope and broad content of the Water Management Plan has been developed through discussion with partners, the LEP's Water Management Board and a stakeholder workshop in June. A further workshop is scheduled for 22nd September to develop greater detail on potential solutions and specific schemes, with the intention of submitting a final draft of the Water Management Plan to the GLLEP Board in early November.

The Joint Lincolnshire Flood Risk and Drainage Management Strategy Group has been engaged throughout this process, and is supportive of the approach which embeds key elements of the Joint Flood Risk Management Strategy within a framework of actions demonstrably promoting economic growth in Greater Lincolnshire.

Funding

Both the Humber LEP and the Greater Lincolnshire LEP have been seeking to provide compelling business cases for the importance of funding flood risk management as a contributor to economic growth. For the Humber this is largely on the basis of the future opportunities for industrial growth on the South Bank, while for Lincolnshire this is represented by the need to maintain and grow the visitor economy on the east coast, and the production and processing of food in the Fens and elsewhere.

The GLLEP, in particular, has undertaken preliminary research to help define more precisely the economic benefit accruing to the nation from investing in flood risk management to protect these activities, and is now interested in taking this work further by exploring the potential economic growth in the future that could be unlocked by continuing with effective flood risk management.

This is an innovative approach, which has great significance for key issues such as future funding of major coastal schemes (for instance Lincshire and its future equivalents) as well as for flood risk from all sources across the county. In effect, as the channel for most of the European funding available to Lincolnshire, the GLLEP represents a major opportunity for the Flood Risk Partnership to explore new ways of attracting a wider range of funding sources beyond the existing mechanisms of Grant-in-Aid and other traditional routes.

A Coastal Vision

As a separate, but linked development, the Flood Risk and Drainage Management Partnership, working with the GLLEP Water Management Board, has been considering initial ideas for a co-ordinating Coastal Vision. As outlined, the purpose of the Coastal Vision is to take advantage of the opportunities offered through the LEP's Growth Strategy and the strong partnership relationships existing between flood risk management authorities to provide a succinct articulation of partners' and stakeholders' ambitions for the coastal zone of Lincolnshire.

The intention of the Coastal Vision is to provide a focal point to draw together the key themes that have emerged from the full range of existing initiatives and prior public consultation in this area as coherent, mutually supporting objectives for the coast. This would include providing a strategic framework within which, for example, the conclusions of the Saltfleet to Gibraltar Point Review could be taken forward along with any new approaches to funding that might be implemented.

In effect, as an overarching framework, the Coastal Vision would act as a touchstone to support future initiatives in the coastal zone in activities including spatial planning, bidding for funding, flood risk management and economic development, among others.

2. Conclusion

The coastal vision does not seek to establish yet another strategy or plan, but rather to codify and distill the key elements that have already been agreed for the future of the coast, bringing these together in one place under the banner of the GLLEP and in the interests of promoting the longer term economic growth of the coastal area.

The primary focus of the coastal vision is provided by the unifying theme of sustainable economic growth, and it is anticipated that the document will be completed by March 2016. It is important that members' views shape the scope and content of the final version, and a new draft will be prepared and circulated to partners and stakeholders incorporating comments received through scrutiny.

A further consultation with partners will then follow, before seeking endorsement for the final version of the vision through the GLLEP Board in the first quarter of 2016.

3. Consultation

a) Policy Proofing Actions Required

n/a

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Draft Lincolnshire Coastal Vision 1.1

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 David Hickman, who can be contacted on 01522 554809 or david.hickman@lincolnshire.gov.uk.

Lincolnshire Coastal Vision

Draft for discussion – version 1.1: 22nd May 2015

A Vision for Lincolnshire's Coast by 2030

We will sustain and grow coastal businesses and the economy

We will sustain and develop coastal prosperity through infrastructure

We will protecting and sustain the coastal environment

Strategic context

Greater Lincolnshire provides

- £12bn GVA to the UK economy in 2013
- £1bn visitor economy with over 17m visitors in 2012
- The fourth most popular tourism destination in the UK
- £1.5bn manufacturing economy
- 25% of the UK's grade 1 agricultural land
- 25% of all UK-grown vegetables
- 20% of the UK's RAF bases
- The second-fastest growing of all the shire counties with net inward migration twice the national average.

Greater Lincolnshire is ambitious to

- Increase economic output by £2.5bn over the next ten years
- Establish the UK's largest Enterprise Zone on the Humber Estuary
- Create or safeguard 9,000 jobs
- Create 1m square metres of commercial floor space

The Lincolnshire Coast

Lincolnshire's coast is variously defined. For the Coastal Vision a broad definition captures the full range of opportunities at a strategic level.

For this reason, within the confines of the administrative boundary of Lincolnshire we have adopted the approach taken by the Coastal Study of 2010, which took the entirety of South Holland District and Boston Borough, along with all of lowland East Lindsey District.

However, it is very important that the broader geographical basis of the Greater Lincolnshire LEP, covering North East Lincolnshire and North Lincolnshire is

taken in to account, together with opportunities to pursue linkages in approach with New Anglian LEP, covering Norfolk and the rest of the Fens.



The role of the coast

Lincolnshire's coastal zone contributes a major part of these benefits.

On the Humber, the MPs Business Case details the opportunities for investment offered by maintaining the coastal defences around the estuary. The Humber LEP and the Greater Lincolnshire LEP have co-operated in putting forward to Government the benefits that greater flexibility in funding coastal defences from the Humber to the Wash.

On the Lincolnshire coast these benefits currently include

- £400m of the £1bn visitor economy
- The three nature reserves at Donna Nook, Theddlethorpe Dunes and Gibraltar Point between them attracted 522,000 visitors in 2012

- Easy access to the Lincolnshire Wolds Area of Outstanding Natural Beauty
- More than 50 miles of coastline also offer traditional seaside resorts such as Skegness, Mablethorpe and Sutton-on-Sea
- Butlins at Skegness is the fourth most popular tourist destination in the UK
- Coastal Lincolnshire is responsible for growing one eighth of the nation's food and processing 70% of its fish
- 5% of all UK food processing jobs, including plants belonging to many of the largest companies in the UK food sector
- Training in the agri-food industry is provided at the University of Lincoln's Holbeach campus through the National Centre for Food Manufacturing
- Prime location for business investment from food manufacturers
- Agri-food generates GVA of over £2.5bn and employs 56,000 people

This activity is located in a broad coastal plain almost entirely at or below sea-level, amounting to nearly 40% of Lincolnshire's land area. The coastal surge of December 2013 demonstrated vividly how well much of this area is protected from the sea by 125km of raised sea defences, supplemented by over 1,000km of river defences. The lowland fens as a whole are maintained as productive agricultural land with the aid of 4,800km of IDB-managed drainage channels and watercourses.

In financial terms, in Lincolnshire alone the existing IDB assets represent about £150m of investment, while the Environment Agency has invested in the region of £250m over the past twenty years in sea defences alone. At present (2015), average annual investment by the Environment Agency stands at about £10m, including £7m for the annual beach replenishment scheme from Mablethorpe to Skegness known as Lincshore.

Without this investment the capacity of the coast to support existing communities and economic activity would be fundamentally compromised. Current national funding mechanisms for flood risk assets mean that in practice the Lincshore section of coast faces a funding gap of £1.2m per year. Securing sustainable funding to manage our water resources will therefore be a key challenge for Lincolnshire over the coming years.

A Coastal Vision for Lincolnshire

Over recent decades many initiatives and plans have been implemented to support different aspects of coastal life. While these have not always been well co-ordinated or clearly prioritized recent initiatives have recognized this, and are seeking to develop a more strategic approach to capitalize on previous successes and make the most of new and emerging investment opportunities.

The development of the Greater Lincolnshire Growth Strategy provides an important opportunity to realise these ambitions, linking coastal initiatives within a wider framework of co-ordination as a driving force behind Lincolnshire's economic potential.

The purpose of this Coastal Vision for Lincolnshire is to articulate a common sense of direction for the county's coastal areas within this framework. This will support initiatives with common objectives to capitalize on the outcomes of previous and existing work. It is also intended to provide a supportive context to help new and future initiatives reap greater rewards by co-ordinating funding bids and aligning programmes of work.

Elements of the Coastal Vision

Lincolnshire has developed a track record of innovative approaches to the economic, social and environmental challenges experienced by its coastal communities. These can be distilled into a small number of high-level outcomes.

1 Sustaining and growing business and the economy

Lincolnshire has successfully attracted funding into its coastal communities to explore and develop approaches to tackling social issues and encouraging business investment and growth. Ranging from projects funded from LEADER and RDPE funding, to the development of innovative strategic networks such as the Coastal Action Zone and the Coastal Communities Alliance, this work has realized considerable funding and delivered numerous community initiatives.

There are significant opportunities to derive enhanced benefit from improving linkages with this approach, including liaison with the newly established coastal team and co-ordination with the developing strategic direction established through the GLLEP's Growth Strategy

The GLLEP has identified a number of key areas where Lincolnshire offers the greatest opportunities for economic growth. These are agri-food, the visitor economy, and housing. The GLLEP has identified water management as a fundamental factor in addressing these sectors.

In the coastal parts of Lincolnshire the interdependence between coastal and water management, agri-food, the visitor economy and sustainable housing growth is particularly marked. This is equally true of the agricultural, rural areas as it is for the major urban centre of Boston and east coast communities such as Skegness and Mablethorpe, although the balance between these elements will vary considerably according to local circumstance.

Key plans and initiatives

GLLEP Growth Strategy 2015-2030
Lincolnshire's RDPE Strategy
GLLEP Water Management Plan 2016

2 Sustaining and developing prosperity through infrastructure

Coastal Lincolnshire represents a challenge for strategic and local spatial planning, with a combination of socio-economic and environmental factors that have traditionally been considered issues rather than opportunities. In particular the prevalence of low-lying land at risk from coastal inundation requires a delicately balanced approach to provide opportunities for community resilience and business growth that take a proportionate view of the potential for coastal flooding.

In recognition of the benefits of a co-ordinated approach, emerging Local Plans have incorporated key elements of the 2010 Coastal Study as part of their evidence base, and work continues to explore ways of managing the balance between development and flood resilience in the planning context.

Maintaining the extensive water management infrastructure in the coastal area is a key challenge. This is described more fully below, but effective planning policy in the coastal areas is heavily dependent on achieving the long term objectives for coastal management that are set out in the Shoreline Management Plans for the Lincolnshire coast.

Key plans and initiatives

Shoreline Management Plans 2010-2115
Humber Estuary Strategy & Humber LEP Growth Strategy
Saltfleet to Gibraltar Point Review 2018
Joint Lincolnshire Flood and Drainage Management Strategy 2010-2025
East Lindsey Local Plan 2015-2018
South East Lincolnshire Local Plan 2015-2018
Multi-agency flood plan (LRF)

3 Protecting and sustaining the environment

The Shoreline Management Plans covering the Lincolnshire coast set out a broad strategic ambition of maintaining coastal defences at their present standard and in their present location up to the year 2115, allowing for local flexibility in practical delivery. A fundamental issue here is reliable, sustainable funding. Present funding schemes focus on protecting property. This is a challenge when much of Lincolnshire's most productive agricultural land is

maintained by a combination of sea defence and inland drainage, and is also, by definition, sparsely populated.

On the east coast key assets such as beaches are artificially maintained, providing simultaneously a high standard of defence and critical economic assets for the visitor economies all along the coast. The necessity of maintaining community resilience to potential coastal flooding was highlighted anew by the coastal surge of December 2013, but there remains the challenge of balancing this practical readiness with longer term pragmatism in sustaining and developing the businesses and communities that make a major contribution to the regional and UK economy.

The GLLEP has recognized the importance of this relationship between growing the county's key economic strengths, continued provision of effective flood risk management and creating opportunities for growth by enhanced water management in the round in future. The Coastal Vision seeks to assist in supporting this holistic view of water management in Lincolnshire.

The Lincolnshire coast is the site of nationally important nature reserves at Donna Nook and Gibraltar Point, which draw in hundreds of thousands of visitors every year. UK and European designations cover the Humber and the Wash, while key visitor attractions have been developed through combined sea defence and habitat creation schemes such as at Frieston Shore.

Longstanding initiatives to promote the attractiveness of the coastal environment for visitors through the Coastal Country Park and the Coastal grazing Marshes are being co-ordinated in the newly emerging Wild Coast initiative. The aim of the Wild Coast is to encourage co-ordination across work to develop opportunities for growth in the fields of historic and built environment and the natural environment, with their attendant potential for encouraging local business and increasing visitor numbers and the quality of their experience.

This is an integral part of the broader objectives of partners in enhancing the economic and social potential of coastal Lincolnshire, and the Wild Coast will form a significant part of the final coastal vision.

Coastal Country Park
Wild Coast Strategy 2017
GLNP Nature Strategy

Scope and Timescales

The Lincolnshire Coastal Vision will be delivered through the collective implementation of the range of initiatives indicated above. It is not within the remit of any single organization, or group of organisations, to achieve the broad

aspirations outlined, but it is achievable with a degree of co-ordination between these programmes.

It is envisaged that the Vision should cover a medium term period, up to about 2035, although some core aspects, such as the policy intentions for coastal management in the Shoreline Management Plans are intended to provide a broad indication of the preferred approach up to 2115.

Key milestones are indicated below:

Shoreline Management Plans	2010-2115
Joint Lincolnshire Flood Risk Management Strategy	2012-2025
GLLEP Growth Strategy	2015-2030
GLLEP Water Management Plan completed	December 2015
Completion of Coastal Vision for Lincolnshire	March 2016
Humber Estuary Strategy	2016-17
Development of Local Plans	2015-2018
Wild Coast Strategy completed	2017
Saltfleet to Gibraltar Point Review completed	2018

Discussion Draft

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Policy and Scrutiny

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

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	4 September 2015
Subject:	Investigations undertaken under Section 19 of the Flood and Water Management Act 2010

Summary:

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

Actions Required:

The Committee is asked to consider the current Section 19 spreadsheets at Appendix A and inform the Scrutiny Officer in advance if they wish to raise any particular site(s) at the forthcoming Committee.

The spreadsheets are also able to be viewed at the following link - <http://www.lincolnshire.gov.uk/residents/environment-and-planning/flood-risk-management/flood-investigations/117780.article>

1. Background

Following a previous meeting of the Committee, the Section 19 spreadsheets have been simplified by separating those completed and those currently in progress; also they have been categorised into highway areas as opposed to divisional areas. For the purposes of the Committee and to simplify scrutiny, only the sites where investigations have not yet been completed are reported (Appendix A). However, details of all completed Section 19 investigations can be viewed on the website above.

As part of the County Council's duties as Lead Local Flood Authority, we are required to carry out investigations into flooding incidents, from any source, under Section 19 of the Flood and Water Management Act. Section 19 requires that we carry out investigations "to the extent that we consider necessary or appropriate" and the Guiding Principles Note outlines the criterion where formal investigations will be undertaken, the main one being where internal property flooding has taken place.

We are then required to publish the results of the investigations, in particular identifying which Risk Management Authorities (e.g. ourselves, district councils, the Environment Agency, water companies and internal drainage boards) have responsibilities and whether they are to exercise their functions.

2. Results of Section 19 investigations and publishing in accordance with the Flood and Water Management Act

In order to satisfy Section 19 of the Flood and Water Management Act the County Council as Lead Local Flood Authority has a duty to investigate flooding (to the extent that it considers it necessary), determine which risk management authorities have responsibility and if they are going to exercise their functions, then publish the results. Section 19 of the Flood and Water Management Act states:

Section 19 – Local authorities: investigations

- (1) *On becoming aware of a flood in its area, a lead local flood authority must, to the extent that it considers it necessary or appropriate, investigate-*
 - (a) *which risk management authorities have relevant flood risk management functions, and*
 - (b) *whether each of those risk management authorities has exercised, or is proposing to exercise, those functions in response to the flood.*
- (2) *Where an authority carries out an investigation under subsection (1) it must-*
 - (a) *publish the results of its investigations, and*
 - (b) *notify any relevant risk management authorities.*

3. Conclusion

Members are asked to consider the summary of the reports into flooding, carried out under Section 19 of the Flood and Water Management Act, at Appendix A and to notify the Scrutiny Officer in advance of the meeting if they wish to raise any particular site(s) at the meeting.

4. Appendices

These are listed below and attached at the back of the report	
Appendix A	Spreadsheets summarising investigations under Section 19 of the Flood and Water Management Act in Lincolnshire

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 Mark Welsh, who can be contacted on 01522 782070 or mark.welsh@lincolnshire.gov.uk

Lincolnshire County Council Section 19 Investigations - NORTH DIVISION AREA E - Contact Officer: Jeanne Gibson, Area Highways Manager - Email - LCCHighwaysNorth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference

Lincolnshire County Council Section 19 Investigations - NORTH DIVISION AREA F - Contact Officer: Steve Wiles, Area Highways Manager - Email - LCCHighwaysNorth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
28-Jun-12	Keelby Maple Avenue, Riby Road and Pelham Crescent	Flooding was caused by surcharging surface water sewers combined with overland flows. 4 Properties	LCC - Yes Anglian Water - Yes	Further detailed study required into the ownership, condition and capacity of the surface water sewer system with a view to providing a new pipe system to intercept flows from the A18 Barton Street; to reduce flows entering the village, and to upgrade the pipe between Riby Road and Caddle Beck. Further LCC investigation and design required. Scheme bid submitted for feasibility and works.	Yes (may also require Anglian Water investment)	Surface water drainage scheme under consideration. Further LCC investigation and design required. Feasibility 2015/16 Work 2016/17	LCC AW	On-going Investigation & Feasibility 2015/16 Possible works 2016/17	S19-032
25-May-14	Kexby High Street	History of surface water flooding and drainage issues in location. Most recent event involved an intense period of persistent rain causing surface water drains to back up and flow into the garden and driveway, and then into the property whilst the resident was not at home. 1 Property	LCC - Yes	LCC has arranged for the surface water drainage system to be jetted and cleansed. However, there is evidence that there is a broken pipe within the system. It is proposed to install a new section of surface water drain to create a connection to another system which is known to be in good order, providing an alternative outfall and rendering the damaged pipe redundant. WLDC have been advised to sweep the roads to prevent excess silt and debris blocking the drain.	No	System has been cleansed and jetted, WLDC have swept the roads. Damaged surface water drain is currently being replaced by LCC.	LCC	Minor Works completed On-going Spring 2015	S19-076
20-July -14 & 10-Aug-14	Scotter Emison close	During heavy rain in the area, the surface water drainage system located on the High Street was unable to cope with the excess water causing it to flow down the eastern side of Emison Close and into the garden. The water entered the property via the garage and air bricks and caused damage to the living area of the property. 1 Property	LCC - Yes	The current drainage system will adequately drain normal amounts of surface water and is free flowing. However, during intense periods it has been shown that the current system will not cope. Investigations are currently being carried out to see if alteration to the footway levels and kerbing will prevent surface water from flowing onto the property. Remedial works to alter footway levels and kerbing will be programmed in the future.	No	LCC to carry out a level survey and further drainage investigations, to identify any problems with the current system and reconstruction works to alter footway and kerbs in the area.	LCC	On-going Summer 2015	S19-079
Page 48 11-Aug-14	South Kelsey Thornton Road	Intense summer rainfall caused a combined sewer in the highway to surcharge, leading to a mixture of surface water and foul water entering the property. Investigations revealed an obstruction in the sewer system. 1 Property	LCC - Yes Anglian Water - Yes	The system has been cleaned and jetted out, the nature of the obstruction was unknown, but the system is now running clear. Anglian Water are to carry out an investigation into the condition of the sewer. The property owner has been advised to implement resilience measures to ensure the private connection does not back up in the event of the sewer surcharging. An example of such measures would be the fitting of a non-return valve to the connection.	No	Anglian water to carry out a condition survey of the system and the resident to consider carrying out the fitting of a non-return valve to the private system.	LCC AW Riparian Owner	On-going	S19-104

Lincolnshire County Council Section 19 Investigations - NORTH DIVISION AREA F - Contact Officer: Steve Wiles, Area Highways Manager - Email - LCCHighwaysNorth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
Page 49 09-Jun-14	Gainsborough Marshalls Yard	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 50 properties were flooded internally. 50 Properties	LCC - Yes WLDC - Yes Severn Trent Water - Yes	<ol style="list-style-type: none"> That all RMA's inspect their respective infrastructure and take any necessary steps to ensure it is working as well as possible. Advice be made available to victims of flooding with regard to resistance measures which might be appropriate, for example air brick covers and flood gaters. LCC consider improvements to the highway surface water drainage where this will offer resistance to flooding from surface runoff. That the LLFA investigate the feasibility of overland flood routes to manage the risk of flooding from surface water 	No	All actions and recommendations being progressed.	LCC WLDC STW	On-going	S19-115
	Elsham Walk								
	Tower Street								
	Hill Crescent								
	Limber Close								
	Trinity Street								
	Silver Street								
	Caldicott Drive								
	Darwin Street								
	Rectory Avenue								
	Spring Gardens								
	Priory Close								
Long Wood Road									
19-Jul-14	Market Rasen Oxford Street	Following a period of unusually intense rainfall as a result of which the surface water highway drain surcharged, the resultant surface runoff from the road and footway entered the property through the door. 1 Property	LCC - Yes	The recommendations including Cleaning and jetting the entire drainage system. During the routine gully cleansing a minor defects were reported approximately 50m from the property. As part as routine maintenance the blocked connection will be repaired in due course.	No	Routine maintenance will be carried out to remove the blockage from the connection further down the system.	LCC	On-going Summer 2015	S19-114
21-Jul-14	Hemswell Capper Avenue	The cause of flooding appears to be surface water run-off from the carriageway and adjacent open grass area following a period of heavy rain, with the carriageway drainage unable to cope. Capper Avenue is a private road in the control of a management company, which includes the surface water drainage. 1 Property	LCC - Yes Anglian Water - Yes	<p>The recommendations include investigations be made by the management company into the surface water drainage system to check the system is operating at full capacity, and identify and reasonable improvements to mitigate residual flood risk.</p> <p>That investigations be made by Anglian Water into the condition of the foul system.</p> <p>That the property owner be reminded of advice given in 2012 by WLDC with regard to flood risk management and property protection.</p>	No	All actions and recommendations being progressed.	LCC AW Private	On-going Autumn 2015	S19-127

Lincolnshire County Council Section 19 Investigations - NORT DIVISION AREA G - Contact Officer: Alan Brown, Area Highways Manager - Email - LCCHighwaysNorth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA H - Contact Officer: Dean Myhill, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
29-Jun-12	Chapel St Leonards The Esplanade	Surcharging from the highway drainage system due to blockages within the system, root ingress and possible concerns over the number of gullies. 2 Properties	LCC - Yes	LCC has investigated the highway drainage system and undertaken a CCTV survey which indicates blockages and root infestation. Gullies and connections have been jetted. Further work is planned to clear roots and blockages within the system, and install additional gullies. The improvements are currently being designed and costed.	No	Work being designed and costed.	LCC	On-going Design & Possible works 2015	S19-012
Page 51 28 Jun 12 6 Jul 12	Louth Riverhead Terrace, Louth	During heavy rainfall (estimated to be a 1 in 60 year event) flooding took place in Riverhead Terrace due to overland flows from adjacent Riverhead development, and flows from the Terrace area being unable to escape. 9 Properties	East Lindsey District Council - Yes Anglian Water - Yes	Development has taken place to the east and north of Riverhead Terrace, which is partially complete. The new development is significantly higher than the Terrace, and has severed the natural drainage and flow routes from Riverhead Terrace, such that surface water from the Terrace and land to the north is trapped against the new development. The only means of surface water disposal from Riverhead Terrace is now via a combined gravity system with an assisted foul pumping station. The pumping station was installed, subsequent to development, at the east of Riverhead Terrace. It is unlikely that this foul pumping station will have the capacity to deal with surface water flows from Riverhead Terrace and its catchment area. The new development is to be drained by Anglian Water foul and surface water sewer systems and also involves the culverting of a watercourse which previously drained the land to the north and east of the Terrace. Due to the elevation of the new development the plans included a retaining wall at its junction with Riverhead Terrace. However, this was not constructed at the time of the flooding. In addition, a number of planned road gullies at the western end of the development were not installed and others were blocked. This added to the problems in the Terrace by allowing flows from the higher development to cascade down into Riverhead Terrace. Since the summer ELDC have required the developer to complete the retaining wall, install the missing gullies, and clean out the surface water sewer system, which should mitigate the overland flows from the development. However, there remains a significant issue in that the development has severed the natural drainage and flow routes from Riverhead Terrace, such that surface water from the Terrace and land to the north are trapped against the retaining wall and the raised development. East Lindsey District Council has commissioned a study which has commenced. Survey complete and study undertaken to identify issues and solutions. Anglian Water has undertaken further investigation with potential for a grant aid bid.	No	ELDC commissioned a hydrological study in April 2013 which is now complete. The report makes a number of recommendations - the most significant being to install a much larger AW pumping station. AW to make a scheme submission as part of their Price Review 14 process. Works have commenced (Aug 2014) into the upgrade of the sewer system. Work to be carried out in two phases, first being Ramsgate Road Area and then Phase Two to include improvements to the Riverhead Area.	AW ELDC	Completion due Summer 2015	S19-016
09-Jun-14	Saltfleet Main Road	Extreme rainfall (1 in 60 year event) meant the highway drains were unable to cope with the amount of surface water on the carriageway and overland flow from the surrounding land. 1 Property	LCC - Yes	Following the investigation into the flooding several factors were identified: Level of property which is situated 1.3m below carriageway surface; surface water system capacity issues were also identified due to the extreme rainfall event; and surface water and overland flows from adjacent land. The recommendations identified the need for replacement of a 48m section of pipe to remove a bottle neck within the system. Additional works to possibly re-line sections of the pipe, repair damaged sections and root cutting works are to be programmed for 2015.	No	Root cutting ,possible re-lining the pipe and replacement of section of pipe.	LCC	On-going completion due Summer 2015	S19-094

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA H - Contact Officer: Dean Myhill, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
24-Jun-14	Manby Provost Road / Carlton Road & Chapel Lane	Following the two periods of extreme rainfall that fell during Monday 9th and Tuesday 24th June, the surface water highway drains were unable to cope with up to 31mm of rain falling in 1 hour. Majority of the surface water was initially discharged from ELDC carpark and adjacent playground onto the carriageway. Lincolnshire Fire & Rescue attended the scene to pump out excessive surface water. 3 Properties	LCC - Yes	ELDC arranged to cleanse and jet the existing system and carry out a full investigation. The report identifies that the current system requires a major upgrade including the installation of new pipes and gullies. ELDC is installing a holding tank within its property to control the discharge of surface water onto the highway.	No	Work to upgrade the existing drainage system has been completed; the installation of the holding tank is due to be carried out very soon by ELDC.	ELDC	Partially completed Summer 2015	S19-095
08-Aug-14	Louth High Holme Road	Extreme rainfall caused significant overland flow and highway surface water to enter low lying properties; this was due to capacity issues of the existing surface water drainage system. Residents in the properties were evacuated to temporary accommodation due to internal flooding. 1 Property	LCC - Yes	LCC to issue a small footway drainage improvement scheme to help alleviate problems in the area although this will not resolve the problems during extreme rainfall, but may offer assistance during heavy / average rainfall.	No	LCC Highways to undertake a small footway/drainage scheme and carry out further investigations regarding drainage capacity issues. In addition to the drainage works LCC Highways are replacing the dropped kerbs outside the property with full height kerbs to help redirect surface water away from the property.	LCC	On-going Completion due Summer 2015	S19-088

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA J - Contact Officer: Andrew Ratcliffe, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
28-Jun-12	Horncastle East Street and Stanhope Road Area	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 East Street and Stanhope Road. The extreme rainfall overwhelmed the highway drainage system which was also suffering from surcharged outfalls due to high river levels. 2 Properties	LCC - Yes	LCC has undertaken a CCTV survey of the highway drainage system in the area which has identified some minor defects and obstructions which will be addressed. LCC has also undertaken initial modelling work to help understand and assess the surface water flood risk in Horncastle. A further meeting with Anglian Water is to be arranged, and a bid for an overall surface water study for Horncastle is being submitted by LCC.	Yes	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 2015/16/17.	LCC AW	Minor works completed but further feasibility & design works programmed 2015 - 2017	S19-001
28-Jun-12	Horncastle West Street	Extreme rainfall (estimated to be a 1 in 50 year event) caused significant overland flows from the adjacent school field, hillside and Lincoln Road. The surface water collected at the bottom of the hill causing flooding to the Grammar School and adjacent properties in West Street. 3 Properties	LCC - Yes Anglian Water - Yes	LCC has undertaken a check of the highway drainage system in West Street and has cleaned out a number of gullies and removed the blockages. 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.	Yes	Blockages removed and gas main relocated. 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 2015/16/17.	LCC	Minor works completed but further feasibility & design works programmed 2015 - 2017	S19-002
28-Jun-12	Horncastle South Street and Bull Ring	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	Anglian Water - Yes LCC - Yes	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.	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.	LCC	Minor works completed but further feasibility & design works programmed 2015 - 2017	S19-003

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA J - Contact Officer: Andrew Ratcliffe, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
28-Jun-12	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. 3 Properties	LCC - Yes Anglian Water - Yes Witham 3rd IDB - Yes	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.	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 2015/16/17.	LCC	Feasibility & Design Works 2014 - 2015 - 2017	S19-004
28-Jun-12	Horncastle Mark Avenue, Accommodation Road and 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	Anglian Water - Yes Witham 3rd IDB - Yes East Lindsey District Council - Yes	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.	Yes	Ditches cleaned out. Discussions ongoing between Anglian Water and Witham 3rd IDB regarding ownership. 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 2015/16/17.	LCC AW Witham 3rd IDB	Minor works completed but further feasibility & design works programmed 2015 - 2017	S19-005
28-Jun-12	Horncastle Bowl Alley Lane	Extreme rainfall (estimated to be a 1 in 50 year event) caused significant overland flows from the adjacent school field and Bowl Alley Lane. The surface water collected at the lowest point causing flooding to the adjacent properties in Bowl Alley Lane. 3 Properties	Anglian Water - Yes LCC - Yes	Whilst the flooding was caused by extreme rainfall and overland flows, LCC has undertaken a CCTV survey of the underground surface water systems in the area. This has revealed a number of condition concerns in relation to the system owned by Anglian Water. The report has been passed to Anglian Water and future discussions will be undertaken in order that it considers future action and repairs. In addition, LCC is planning to install additional drainage protection features in front of the affected properties, and is in discussion with the school with respect to intercepting flows from the school car park. A bid for an overall surface water study for Horncastle is being submitted by LCC.	Yes	Partnership scheme developed between LCC Highways, Education, AW and initial work 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 2015/16/17.	LCC AW	Minor works completed but further feasibility & design works programmed 2015 - 2017	S19-006
28-Jun-12	New Bollingbrooke Main Road/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	LCC - Yes	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.	No	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.	LCC	Minor works completed but further feasibility & design works programmed 2014 - 2016	S19-007

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA J - Contact Officer: Andrew Ratcliffe, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
28-Jun-12	Toynnton 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	Witham 4th IDB - Yes LCC - Yes	It is recommended that a new watercourse be cut to the south to divert flows from Toynnton 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.	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.	Witham 4th IDB	Investigation 2016/17/18 Possible works 2018/19/20	S19-010
06-Jul-12	Burgh Le Marsh High Street	Overland and highway surface water flows entering low lying property due to suspected lack of capacity and defects in the surrounding highway drainage system, despite previous kerbing works aimed to mitigate problem. 1 Property	LCC - Yes	LCC have investigated the surface water system and identified damage caused by utility activity. LCC will enforce repair once the utility has been identified.	No	Works to raise kerbs and regrade footway in hand. New surface water sewer/drain in carriageway with outfall to Catchwater Drain is budget dependent. Initial discussions with LMIDB have been undertaken to investigate routing and outfall locations.	LCC LMIDB	Partially complete but further investigations on-going 2014/15	S19-024
09-Jun-14	Hagworthingham Sausthorpe Road	Following torrential rainfall, drains were unable to expel the surface water causing it to flow onto the driveway and enter the property owners conservatory. 1 Property	LCC - Yes	LCC Highways has cleansed and jetted the existing drainage system. The report into the drainage investigation is still outstanding and CCTV investigation of the drainage system will be carried out if required.	No	Drainage system has been jetted and cleansed awaiting report. If required a CCTV investigation will be carried out to identify any problems within the system.	LCC	On-going Summer 2015	S19-092
09-Jun-14	Bucknall Platts Lane	Extreme rainfall caused significant surface water to flow along the highway. The highway drains were unable to cope, allowing water to flow over the kerbed accesses to the properties, causing internal flooding. 2 Properties	LCC - Yes	LCC to clean and jet the whole system through to the outfall to ensure the system is running free. Minor highway maintenance is required to remove a pedestrian dropped kerb access to mitigate flooding to one of the properties. Further highway work to be programmed to remove an area in front of the kerb, this will increase the kerb face and direct water away from the second property. Further drainage investigations may be required. Install additional gullies up stream of the affected properties.	No	Following the cleansing and jetting of the entire system highway maintenance work and further drainage investigations will be funded during 2015.	LCC	On-going Summer 2015	S19-093
24-Jun-14	Horncastle Langton Hill	Extreme rainfall estimated at being a 1 in 30 to 1 in 100 year event resulted in significant overland flows from the surrounding land. The combined surface water and overland surface water flow overwhelmed the highway sewer system on Langton Hill and West Street and caused flooding at the bottom of the hill which affected one property. 1 Property	LCC - Yes	Following a similar event in 2012, works were undertaken by AW and LCC Highways to rectify defects to the surface water systems along Langton Hill and West Street. However, defects to one section of the highway drainage system are yet to be completed. There appears to be issues with the capacity of the system in the area. LCC recommend the completion of the initial project identified in 2012 along with profiling the footway and lifting the kerb face to divert surface water away from the property, this is currently underway. There is also a ditch at the higher end of Langton Hill which requires cleaning out and Witham 3rd IDB require action by the riparian land owners.	No	Reprofiling of the footway is currently underway along with the completion of outstanding works; all due to be completed by the end of March 2015. The cleaning out of the ditch is yet to be undertaken by the riparian owner.	LCC Witham 3rd IDB AW	Completion due Spring 2015	S19-096

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA J - Contact Officer: Andrew Ratcliffe, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
09-Jun-14	Skegness North Parade	Intense summer rainfall caused internal flooding to the hotel. Surface water entered the building via the ladies toilets. 1 Property	LCC - Yes Anglian Water - Yes	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.	No	Further investigations to be carried out by AW and recommendations advised to property owners.	LCC AW	On-going Spring 2015	S19-101
24-Jun-14	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. 1 Property	LCC - Yes Anglian Water - Yes	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.	No	Further investigations to be carried out by AW and recommendations advised to property owners.	LCC AW	On-going Spring 2015	S19-098
24-Jun-2014 & 13-Jul-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. 1 Property	LCC - Yes	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.	No	Further investigations to be carried out by AW and recommendations advised to property owners.	LCC AW	On-going Spring 2015	S19-099
24-Jun-14	Skegness Theatre, 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 Property	LCC - Yes	AW to investigate the capacity of the surface water system. ELDC should consider investigating whether it has sufficient drainage within it's land to accommodate the normal flows expected.	No	Further investigations to be carried out by AW & ELDC	LCC AW ELDC	On-going Spring 2015	S19-100
27-Jun-14	Skegness Junior School Academy Pelham Road	During torrential rain, school corridors were overwhelmed with flood water from the 3 internal downpipes located within the schools corridor. Due to the back up of silt and debris located in the main drain on Pelham Road, excess water from the downpipes overflowed into the Year 5 corridor causing internal flooding. 1 Property	LCC - Yes	AW should investigate the surface water system for possible restrictions to flow. Further investigations regarding the outfall of the system need to be undertaken in due course.	No	Further investigations to be carried out by AW	LCC AW	On-going Summer 2015	S19-102

Lincolnshire County Council Section 19 Investigations - EAST DIVISION AREA J - Contact Officer: Andrew Ratcliffe, Area Highways Manager - Email - LCCHighwaysEast@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
05-Jun-15 Page 57	Skegness Park Avenue	Internal flooding at the Police Station. 1 Property	LCC - Yes	LCC are currently investigating the incident which was reported by AWA	No	Further investigations to be carried out by LCC	LCC	NA	NA

Lincolnshire County Council Section 19 Investigations - WEST DIVISION AREA L - Contact Officer: Rowan Smith, Area Highways Manager - Email - LCCHighwaysWest@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
28-Jun-12	Ruskington High Street North and South, Manor Street, Chapel Street and Chestnut Street.	Overtopping of Ruskington Beck (Main River) and surcharge of foul sewers and overtopping of riparian watercourse. 6 Properties	Environment Agency - Yes Anglian Water - Yes Witham 1st IDB (Enforcement) - Yes	The Environment Agency is to carry out a hydraulic model of Ruskington Beck and carry out riparian enforcement. Anglian Water is investigating the foul water system and is considering an improvement scheme. A bid for an overall study for Ruskington has been submitted for feasibility, design flood works.	Yes	Investigation ongoing LCC, AW, EA meeting held with all partners' involved to discuss scheme brief. Feasibility and Design 2014/15; possible work 2016/17.	LCC AW EA	Feasibility and Design 2014/15 Possible works 2015-17	S19-045
28-Jun-12	Cranwell Thorald Avenue	Surface water surcharge from private parking area and highway gullies onto private property causing internal flooding of conservatory. Possible contributing factors due to the development of adjacent land which was historically an area of flood plain. Non maintenance of riparian watercourse. 1 Property	Witham 1st IDB - Yes LCC - Yes North Kesteven District Council - Yes	Investigations ongoing between LCC, North Kesteven District Council and Landowners. Work to divert water away from garages being looked at. Landowner has been written to regarding possible cutting of new dyke.	No	Investigations ongoing by LCC, NKDC and Landowners. Possible work being investigated to divert highway water away from private land. Survey complete & report received. Further meeting held with NKDC Nov 2014.	LCC NKDC	Summer 2015	S19-047
28/06/2012 & 29/06/2012	Digby North Street	Overland flow from field into private properties, also blocked culvert/watercourse on school playing field. 8 Properties	LCC - Yes Witham 1st IDB - Yes	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. AW investigating sewer system.	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 2014/15. Possible works 2015/16/17. AW investigating sewer system	LCC Witham 1st IDB EA AW	Minor works have been completed. Further feasibility & design works programmed 2014/15 Possible works 2015-17	S19-048
28/06/2012 & 29/06/2012	Digby Beck Street	Overtopping of Digby Beck (Main River) and capacity issues on the foul sewer. 2 Properties	Environment Agency - Yes Anglian Water - Yes LCC - Yes		Yes				S19-049
28/06/2012 & 29/06/2012	Digby The Hurn	Overtopping of IDB drain (Digby Beck North Branch) and riparian watercourse. 10 Properties	Witham 1st IDB - Yes Anglian Water - Yes		Yes				S19-050
28-Jun-12	Scopwick Main Street	Ditch backing up and overtopping due to volume of surface water in the main surface water pipe system. 1 Property	Witham 1st IDB (Enforcement) - Yes LCC - Yes	LCC has jetted the system, further investigations into ownership of main piped drain and open ditch are ongoing. Two pipes under the road culvert were sufficient to cope with the expected flows and no alterations will be required. However, it was agreed that a camera survey would be appropriate to ensure flow was unrestricted, this was completed in Nov 2013. The drainage report clearly shows two intrusions of utility apparatus blocking the flow at two separate points by up to 40%. AW is considering repairs to the breakages and move its services out of the way. Riparian drainage and maintenance works are required. Investigation needed into overland and groundwater flows into new development.	No	Works carried out by LCC on replacement of culvert April 2014. Further investigation works to clear other obstructions on going, and liaising with EA in regards to surface water flow.	LCC	Minor works have been completed. Further feasibility & design works programmed Spring 2015	S19-052
28-Jun-12	Sleaford Southgate	Surface water from public highway and private land flowing into properties through front and rear entrances. 2 Properties	LCC - Yes Anglian Water - Yes	LCC to advise properties on self prevention measures relating to flood resilience. Anglian Water to investigate capacity of combined system.	No	LCC actions completed but awaiting AW investigation. LCC liaising with Anglian Water in regards to capacity issues.	LCC AW	Summer 2015	S19-053

Lincolnshire County Council Section 19 Investigations - WEST DIVISION AREA L - Contact Officer: Rowan Smith, Area Highways Manager - Email - LCCHighwaysWest@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
28-Jun-12	Timberland & Thorpe Tilney village Church Lane & Hallams Lane	Surcharging of open watercourses and assumed restrictions within culverted sections. Surcharge of public surface and foul water systems. 3 Properties	Witham 1st IDB - Yes LCC - Yes Anglian Water - Yes	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.	Yes	Local work involving excavations to provide access for CCTV survey on-going. Kerbing work completed. Wider scheme Feasibility and Design 2016/17/18. Possible works 2018/19. LCC to carryout regular monitoring.	LCC	Minor works completed. Further Feasibility & design works programmed for 2017/18 Possible works 2018/19	S19-054
28-Jun-12	Swaton West End / High Street	Overland surface water flowing through private land. Separate case of overtopping of Swaton Eau flooding carriageway and property basement. 2 Properties	Environment Agency - Yes Black Sluice IDB - Yes LCC - Yes	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.	Yes	EA completed modelling, discussion on-going with LCC regarding possible evacuation route for residents. Also considering resilience measures for properties.	LCC EA BSIDB	EA Feasibility Study 2014/15 Possible works 2016/17	S19-056
06-Jul-12	Burton Pedwardine White Cross Lane / Asgardby Road	Surface water surcharge from private open watercourse to the east. 2 Properties	Black Sluice IDB - Yes	Black Sluice IDB to carry out enforcement. Resident met and awaiting proposals which may be subject to a highway contribution. Awaiting confirmation.	No	Discussions still ongoing between LLFA, IDB and residents. LCC have found and cleaned 2 pipes under road.	LCC BSIDB	On-going completion due summer 2015	S19-062
06-Jul-13	Newton near Haceby Newton Village	Overtopping of riparian dykes. 7 Properties	Black Sluice IDB - Yes LCC - Yes	LCC proposing to replace culvert on Church Road, and the Black Sluice Internal Drainage Board/LCC are to explain further riparian duties to residents. Details of additional enforcement requirements to the east of the village have been sent to the Black Sluice Internal Drainage Board.	Yes	LCC instigated modelling works for catchment area including the village which will take account of new private protection of properties that have been carried out since enforcement letters were sent in June 2013. Proposed culvert replacement programmed. Land Drainage Consent being sort.	LCC BSIDB	On-going Feasibility, Design & Build 2014/15/16	S19-065
23-May-14	Dorrington Main Street	During a period of heavy rainfall this property suffered internal flooding from the lateral sewer beneath the property where water came up through the living room floor. The second event was caused by overland flow where flood water from the garden came in through the rear patio doors. 1 Property	LCC - Yes Anglian Water - Yes	Following investigations it is assumed that saturated land and heavy rainfall caused overland water to flow down the gradient to the property. The lateral sewer located beneath the property was blocked by foreign objects which caused the sewer to burst and push water up through the floor. Anglian Water investigated as to where the excess water came from and suggested that it may have gained access from the foul system through the kitchens open gully's at the rear of the property. LCC highways are considering installing additional gullies near the property and undertake a survey of the dyke to the rear of the property to determine the outfall on the southern side of the village. Anglian Water to carry out further investigations into ensuring where possible, the excess surface water does not enter the foul water system. The Internal Drainage Board has been requested to continue monitoring of the dykes, and take enforcement as necessary. The riparian owner to maintain the dykes that they are responsible for and not to do anything that may restrict their	No	LCC to consider installation of new gullies near the property. AW to carryout investigations into the foul sewer system. IDB to continue the monitoring of the dykes and enforce as required. Riparian owner to maintain the dykes and ensure they do not restrict the flow.	LCC AW IDB	Partially Completed Summer 2015	S19-084

Lincolnshire County Council Section 19 Investigations - WEST DIVISION AREA M - Contact Officer: Mark Heaton, Area Highways Manager - Email - LCCHighwaysWest@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
06-Jul-12	Harlaxton High Street	Current drainage system has insufficient capacity and backed up causing flooding to the carriageway and 2 properties. 2 Properties	LCC - Yes Upper Witham IDB - Yes Anglian Water - Yes	Following detailed investigation, joint work between LCC and Upper Witham IDB has been completed. Investigation to Mow Beck required to understand overall flood risk.	No	LCC surface water scheme completed and EA to investigate Mow Beck watercourse downstream.	LCC EA	Completion due Summer 2015	S19-060
6th Aug 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	LCC - Yes	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.	No	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.	LCC	Completion due Spring 2015	S19-068

Lincolnshire County Council Section 19 Investigations - WEST DIVISION AREA N - Contact Officer: Kevin Brumfield, Area Highways Manager - Email - LCCHighwaysWest@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
22-May-14	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	LCC - Yes	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.	No	Resurfacing scheme to be undertaken including the construction of a kerb line between the private property and highway to act as a barrier.	LCC	Completion due Summer 2015	S19-080
Page 61 21-Nov-12	Corby glen Irnham road	Overland flow from adjacent farm land. 1 Property	LCC - Yes	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.	No	Application submitted for funding to add inspection chambers and upgrade sewer system along a short section of Irnham Road.	LCC	Completion due Summer 2015	S19-069
22-May-14	Deeping St James Horsegate	Following torrential rain, excess water on the carriageway forced water to overtop the footway and enter the properties causing internal flooding. 4 Property	LCC - Yes Anglian Water - Yes Welling & Deepings IDB - Yes	LCC to repair blockages in highway surface water system. Welland & Deepings IDB to clear the identified blockages /diversion in its system and ensure the entry feed in the High Street is closed during weather warnings or during periods of heavy rain to ensure there is capacity for surface water to drain away. AW to maintain the surface water drainage systems with recommendation that its system diverts into the watercourse on the High Street instead of linking with the WDIDB watercourse. Resident to consider adding drainage to their exit to the driveway.	No	Maintenance work to be carried out by LCC. Property owner advised on preventative measures to protect the property. AW to clean & jet its system and divert the current system into the watercourse on the high street.	LCC AW WDIDB	Completion due Summer 2015	S19-105 S19-106
22-May-14	Market Deeping Stamford Road	Following heavy rainfall that fell in a short space of time; causing numerous roads and properties in the area to flood. The amount of rain that fell was excessive for the system at optimum capacity 1 Property	LCC - Yes Anglian Water - Yes	LCC to continue to maintain the surface water system; and consider raising the footway kerbs at the front of the property. However, works to the footway may prove difficult due to conflict with a slope to the footpath away from the building and the existing height of the door threshold and damp proof course levels. Anglian Water to maintain the surface water drainage system. The property owner to maintain the rainwater systems and consider further drainage to allow the escape of water from the rear 'bund' area which is a natural water collection area.	No	Consideration by LCC have been made to lift the footpath and Kerb outside the properties to full height, to prevent water overtopping the kerb onto the footway. However there may be issues in doing this. Awaiting report from AW.	LCC AW	TBC	S19-112

Lincolnshire County Council Section 19 Investigations - WEST DIVISION AREA N - Contact Officer: Kevin Brumfield, Area Highways Manager - Email - LCCHighwaysWest@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
22-May-14	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. 2 Property	LCC - Yes Anglian Water - Yes	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.	No	Maintenance work to be carried out by LCC. Property owners advised on preventative measures to protect the properties. AW to continue with regular inspections & maintenance.	LCC AW	Completion due Summer 2015	S19-107
									S19-108
20-Jul-14	Stamford Water Lane	Following a short period of heavy intense rain, surface water from the highway entered the groundfloor of the property. 1 Property	LCC - Yes	LCC to carry out a survey of the drainage system.	LCC - Yes	LCC to undertake a drainage survey of the system this work has been programmed for 2015	LCC	Due to complete Summer 2015	S19-116
08-Aug-14	Uffington Casewick Lane	During a short burst of heavy rainfall, surface water entered the conservatory. 1 Property	LCC - Yes Anglian Water - Yes	LCC have recommended that the kerb height be increased to ensure rainwater is directed away from the property and into the gully, additional gullies will be placed along the carriageway. AW to continue to maintain their system.	No	LCC to lift the kerb height and install additional gullies. Works to commence in 2015.	LCC AW	Completion due Summer 2015	S19-109
13-Jul-14	Stamford Water Lane	Following a short period of heavy intense rain, surface water from the highway entered the groundfloor of the property. 1 Property	LCC - Yes	LCC to survey and plot the layout of the drainage system to ascertain whether there are any blockages or damage within the system.	No	Carry out a survey of the drainage system works to be completed in summer 2015	LCC	Works due to complete Summer 2015	S19-110
10-Aug-14	Stamford Northumberland Avenue	Due to heavy rainfall, and a waterlogged public open space in front of the property; excess groundwater encroached the threshold and entered the property damaging the hallway carpets and flooring. 1 Property	LCC - Yes South Kesteven DC - Yes Anglian Water - Yes	All highway surface water gullies had been cleaned out and jetted prior to the flooding incident, although we have recommended that the system have further investigations carried out in due course. It is believed the Highway surface water system was not the cause of flooding to the property other than the public open space. AW are to survey the site to ascertain whether the combined drainage system is sufficient to accommodate all the downpipe connections from the properties. SKDC to survey the Public Open Space and identify the manhole cover and determine which drainage system it is connected to and if the manhole/catchpit is clear.	No	LCC to carry out CCTV investigations of the highway drainage system. SKDC to carry out investigations of the drainage system within the public open space. AW to ascertain whether the combined drainage system is adequate to serve the properties.	LCC SKDC AW	Completion due Summer 2015	S19-111

Lincolnshire County Council Section 19 Investigations - WEST DIVISION AREA N - Contact Officer: Kevin Brumfield, Area Highways Manager - Email - LCCHighwaysWest@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
04-Jul-15	Tallington Bainton Road	Suspected cause of flooding is water backing up coming out of the four gullies in front of the property. These gullies are LCC, but the LCC system here feeds into a AW surface sewer about 10-15m downstream. Confirm enquiry 193353. 1 Property	LCC - Yes Anglian Water - Yes	Investigation with AWA have started in July 2015	TBA	LCC investigating with AWA	LCC AWA	TBA	TBA

Lincolnshire County Council Section 19 Investigations - SOUTH DIVISION AREA R - Contact Officer: Debra Greeves, Area Highways Manager - Email - LCCHighwaysSouth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
20-Jul-14	Crowland Chapel Street	Flooding occurred to a property following a heavy downpour. Roof water from a near by building ejects water into the carriageway. Surface water flowed over the surface water drain and into the property. Additionally during this event sewage from the property lifted the manhole in the garden. 1 Property	LCC - Yes	The drainage system has been jetted; and indicated a possible blockage within the system. Excavations have been carried out and no blockage was detected within the drainage system. Since the reported incident there has been further heavy prolonged downpours within the area with no repeat of the previous flooding incident in July. It has been concluded that the current system is slow running and the surface water was exasperated due to the excessive amount of roof water flowing onto the highway from the property opposite. Further investigations will be carried out in due course.	No	Further Drainage Investigations including a 'sonde' is to be carried out in due course. An enforcement letter will be sent to the property opposite which is discharging water onto the highway. Enforcement letter sent to property. Initial investigation carried out with Sonde. More work required.	LCC	On-going completion due Summer 2015	S19-113

Lincolnshire County Council Section 19 Investigations - SOUTH DIVISION AREA P - Contact Officer: Andy Wharff, Area Highways Manager - Email - LCCHighwaysSouth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
05-Dec-13	Lincolnshire coastal towns and villages and various properties along inland tributaries. Various streets in Boston, Friskney, Trusthorpe, Skegness, Gibraltar Point, Tetney Marsh, Wrangle and Susworth	Following the tidal inundation over the weekend, highway, properties, businesses and high grade agricultural land suffered serious flooding. The incident occurred due to extremely high tides combined with low air pressure and onshore wind direction. Extensive damage was caused to sea defences along the East Coast and tidal tributaries inland including The River Witham Haven, Lower River Trent & River Humber 820 Properties	Black Sluice IDB - Yes Witham 4th IDB - Yes South Holland IDB - Yes Environment Agency - Yes Anglian Water - Yes Boston Borough Council - Yes Lincolnshire County Council - Yes East Lindsey District Council - Yes South Holland District Council - Yes West Lindsey District Council - Yes	Skegness - Following partial destruction of the stone wall at the rear of the promenade, discussions are underway with ELDC to agree partnership funding for a permanent solution based on a structural and cosmetic spilt. Work to construct this permanent flood wall will be undertaken under the local regeneration scheme later this year.	Yes	EA & ELDC staged approach to construction of permanent flood wall.	Shoreline management partnership approach involving: Black Sluice IDB Witham 4th IDB Sth Holland IDB EA AW BBC LCC ELDC SHDC WLDC	Completion Due March 2015	S19-075
				Boston - Preparation of the Transport and Work Act Order for the Boston Barrier Scheme for submission to the secretary of state is due to be submitted in Autumn 2015. Subject to approval, the programme for delivering a multi-functional tidal barrier includes construction to start during summer 2017 taking approximately 2.5 years for completion.	Yes	Recommendations remain current. DEFRA consulting on Environmental Assessment scope.		2017 - 2020	
				Gibraltar Point - No emergency work has been undertaken. However, the Environment Agency are looking at the future of Bulldog Bank sea defence and are reviewing the economic justification to fund its repair. If funding is not achievable alternative options will be considered.	Yes	Recommendations remain current. Mathematical model undertaken and being assessed.		TBA	
				Skegness to Mablethorpe Coastline - The annual beech nourishment campaign (Lincshore) ran between April & June 2014, replenishing the material lost over the last year. Over a 20km stretch, 6 areas have been re-nourished in this years campaign.	Yes	Recommendations remain current. Salfleet to Gibraltar Point Coastal Strategy Review currently being undertaken.		TBA	
				Bath Gardens - The tidal surge led to partial failure of a 10m section of a brick flood wall. Sand bags were used, not only to temporarily secure the opening, but also afterwards to protect the new brickwork against subsequent New Year high tides.	No	Recommendations remain current.		Complete	
				Black Sluice Pumping Station - 5 diesel pumps became submerged by floodwater, causing temporary loss of power and saline intrusion to the diesel pumps and gearing mechanisms. Following maintenance work to the pumping station it has now been brought back to working order.	Yes	Recommendations remain current. Black Sluice Strategy Review being undertaken.		TBA	
				Slippery Gowt - Following a 40m wide breach, an immediate temporary repair was completed during December to secure the defence using sheet piling and stone. A permanent repair to improve the defence is underway.	Yes	Permanent repair work completed. Further improvement works to be undertaken following ground investigation.		Oct 2014 - Mar 2015	
				Jakeman's Slip - Area downstream of Grand Sluice on the left bank of The Haven showed signs of movement following the New Year high tides. 300 tonnes of stone was placed and completed in March 2014 to prevent further slippage.	No	Recommendations remain current. Further monitoring confirmed no more work.		Complete	
				The Haven (St Ann's Wharf and White Horse Lane) - Movement of the flood wall was evident in a number of locations and a structural survey was undertaken. The flood wall was repaired along Oxford Street, and a new 30m wall constructed at White Horse Lane.	No	Recommendations remain current.		Complete	
				The Wash - The area south of Horseshoe Point where bank-raising is required has been identified within the Medium Term Plan for completion. Following a meeting in January 2014 to discuss the localised community emergency and flood plan (CEFP), this will include the use of flood wardens and the creation of networks to share information.	Yes	Recommendations remain current. Works still progressing in Medium Term Plan to deliver improved defences.		TBA	

Lincolnshire County Council Section 19 Investigations - SOUTH DIVISION AREA P - Contact Officer: Andy Wharff, Area Highways Manager - Email - LCCHighwaysSouth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
				Susworth -Preventative measures for residents, including raising the top step of the footway on the river bank.	No	Raise footway.		TBA	

Lincolnshire County Council Section 19 Investigations - SOUTH DIVISION AREA P - Contact Officer: Andy Wharff, Area Highways Manager - Email - LCCHighwaysSouth@lincolnshire.gov.uk						Identified Action/Works			
Date of Incident	Town & Location	Description of Flooding & Number of properties flooded	Risk Management Authorities with Responsibilities and whether they are exercising functions	Actions and Recommendations	Consideration for inclusion in future Common Works Programme	Proposed Action/Works	Promoter	Status & Estimated Timescales	S19 Report File Reference
13-Jul-14	Freiston Oak House Lane	Following a short period of heavy rain, surface water from the highway entered an external building where stock was stored for the business. 1 Property	LCC - Yes	LCC to place an additional gully outside the property on the highway to assist with the removal of surface water. The drainage system has capacity to accommodate the additional gully.	No	Works are programmed during 2015.	LCC	Due to complete Summer 2015	S19-110
19-Jul-14	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 Property	LCC - Yes	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.	No	New connections, chamber pots and minor highway alterations are currently in the works programme for next financial year.	LCC	Completion due Summer 2015	S19-103

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Policy and Scrutiny

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

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	4 September 2015
Subject:	Flood and Drainage Management Scrutiny Committee Work Programme

Summary:

This report enables the Flood and Drainage Management Scrutiny Committee to consider its Work Programme for the coming year.

Actions Required:

To consider and comment on the work programme as set out in Appendix A to this report.

1. Background

At every meeting of the Committee, Members will be invited to consider their future Work Programme and to agree on items to be included.

Work Programme Definitions

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

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

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

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

Status Report - The Committee is considering a topic for the first time where a specific issue has been raised or members wish to gain a greater understanding.

Update Report - The Committee is scrutinising an item following earlier consideration.

Scrutiny Review Activity - This includes discussion on possible scrutiny review items; finalising the scoping for the review; monitoring or interim reports; approval of the final report; and the response to the report.

2. Conclusion

To consider and comment on the Work Programme.

3. Consultation

a) Policy Proofing Actions Required

Not applicable.

4. Appendices

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

5. Background Papers

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

This report was written by Louise Tyers, who can be contacted on 01522 552102 or louise.tyers@lincolnshire.gov.uk.

Flood and Drainage Management Scrutiny Committee

Chairman: Councillor Lewis Strange

Vice Chairman: Councillor Victoria Ayling

11 December 2015, 10.00am		
Flood and Drainage Management Scrutiny Committee		
Item	Contributor	Purpose
Louth and Horncastle Flood Alleviation Schemes Update	Deborah Campbell, Environment Agency	Update Report
Boston Barrier Update	Deborah Campbell, Environment Agency	Update Report
Investigations held under Section 19 of the Flood and Water Management Act 2010	Mark Welsh, Flood Risk and Development Manager	Update Report
Capital Programme and Environment Agency Medium Term Plan	Mark Welsh, Flood Risk and Development Manager	Status Report

26 February 2016, 10.00am		
Flood and Drainage Management Scrutiny Committee		
Item	Contributor	Purpose
Louth and Horncastle Flood Alleviation Schemes Update	Deborah Campbell, Environment Agency	Update Report
Investigations held under Section 19 of the Flood and Water Management Act 2010	Mark Welsh, Flood Risk and Development Manager	Update Report

For more information about the work of this Committee please contact Louise Tyers, Scrutiny Officer on 01522 552102 or by e-mail at louise.tyers@lincolnshire.gov.uk

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