

Open Report on behalf of Environment Agency

Report to:	Flood and Drainage Management Scrutiny Committee
Date:	29 May 2018
Subject:	Environment Agency Update

Summary:

To update scrutiny committee on Environment Agency activities, including progress on key capital schemes.

Actions Required:

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

1. Key Capital Schemes

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

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

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

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

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

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

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

1.1 Boston Barrier

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

The Barrier scheme remains on programme:

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

Update since last meeting

Following a ground breaking ceremony in January work has commenced on the barrier has now commenced, with dredging and piling works ongoing.

1.2 Boston Haven Banks

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

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

Update since last meeting

The economics for delivering a 6.50m crest height option is still being processed to avoid double counting of benefits across Boston. We are also

reviewing residual uncertainty allowance for sea level rise, which the business case needs to consider.

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

1.3 Saltfleet to Gibraltar Point Strategy Review (SGPSR)

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

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

Update since last meeting

The SGP consultation on the options ran from 5th February until 22nd March with over engaged with over 600 people at the drop-in events.

We have evaluated all the feedback and are preparing the SGP Strategy with the SEA for formal consultation later this year.

1.4 Lincshore (Interim Beach Management Lincolnshire Coast)

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

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

Update since last meeting

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

The 2018 campaign started at the beginning of May. The initial target volume was set at 400,000m³ though it is likely that this figure will increase given large losses of sand over the high tides of the last few months (due to the “beast from the east” and Storm Emma).

1.5 Horncastle Improvements

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

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

Update since last meeting

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

The reservoir was first used 'in anger' when heavy rainfall over the Easter weekend resulted in it partially filling.

Settlement of the final account is delayed due to disputed claims. The land transfer for the reservoir footprint has been completed and flood easements signed by four of the seven landowners whose land will be affected by the scheme. The other three landowners do not want a flood easement.

1.6 Louth Improvements

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

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

Update since last meeting

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

The reservoirs were first used 'in anger' when heavy rainfall over the Easter weekend resulted in them partially filling.

Land transfer documents are complete awaiting sign off. Once signed these documents will be sent to Land Registry and will enable the flood easements to be signed for two out of the three landowners affected by the scheme. One landowner does not want a flood easement.

1.7 Wainfleet Relief Channel

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

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

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

Update since last meeting

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

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

The requirement for future improvement works will be monitored and reassessed in the future.

1.8 Black Sluice Catchment Works

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

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

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

Updates since last meeting

➤ Black Sluice Pumping Station

The Environment Agency has been working closely with Black Sluice IDB to transfer the pumping station to them (NOT the sluice and navigation lock).

Officers from both organisations are continuing to try and resolve outstanding funding issues. The Environment Agency have agreed to continue to maintain (though not operate) the pumping station until June 2018 whilst the IDB do this.

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

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

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

Officers are now writing a formal response document, and are following up on any questions raised by respondents. If there are no significant objections across the national project, the next step will be to publish the formal notice for designation change.

The project is on schedule to be completed in summer 2018.

➤ **Bank Armouring**

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

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

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

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

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

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

Update since last meeting

The Strategic Outline Business case has been submitted

The initial assessment of costs and benefits have highlighted a likely need for around £2.3million of additional partnership funding. This will be refined / confirmed as the detailed business case is worked on.

1.11 Swaton Resilience Scheme

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

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

Update since last meeting

The Strategic Outline Case for the Swaton Natural Flood Management (NFM) Project was approved in January 2018.

Work to commission the PDU to commence work on the business case preparation is ongoing. The commission is likely to be in two phases, the first will focus on the engagement of farmers and land owners to identify suitable sites for NFM measures to be implemented.

The second phase will include the economic appraisal of the NFM options, outline designs and completion of the business case which will be submitted to the Large Projects Review Group. To allow time for this all to happen, it is likely that the business case will be submitted at the end of the summer, with the first works on site taking place during the winter of 2018/19.

2. Updates on Other Items

2.1 Comprehensive Review of the Humber Flood Risk Management Strategy

The Humber Flood Risk Management Strategy (HFRMS) sets out how the Environment Agency and its partners will seek to manage flood risk around the estuary over the next 100 years,

Published in 2008 the HFRMS pre-dates many of the current guidelines (such as Partnership Funding) and evidence datasets (such as the December 2013 tidal surge) and therefore a comprehensive review was commenced in 2014 with a view to being signed off in 2020.

Update

The review boundary has been extended to include all tidal flood risk below the seven metre contour line.

A long-list of 12 options has been agreed with local authority partners. The long-list options feature a Humber Barrage, barriers on the tidal rivers, engineered changes to the estuary bed, and combinations of defence raising, flood storage and managing tidal flood risk through natural processes.

These options are now being taken through an appraisal process to produce a short-list of options which will then progress through a detailed appraisal to

analyse the benefits and impacts of each option. The aim is to finalise the short-list by the end of this summer.

Officers from the Environment Agency met with North Lincolnshire Council and Lincolnshire County Council, including relevant elected members, to talk through the Review process and the involvement of elected members in the Review. The Memorandum of Understanding was discussed and is progressing through local authority sign off, demonstrating the on-going commitment to partnership working.

2.2 Donna Nook Managed Realignment Site

The Environment Agency has applied to the Department of Transport to secure the diversion of the footpath on to the realigned path. The consultation on the application has now been completed, and there were a number of objections. As the parish council is one of the objectors, the next step will be a public inquiry. The Environment Agency has written to all the objectors.

3. Consultation

a) Have Risks and Impact Analysis been carried out?

No

b) Risks and Impact Analysis

N/A

4. Background Papers

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

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