

**Open Report on behalf of Environment Agency**

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| Report to: | <b>Flood and Water Management Scrutiny Committee</b> |
| Date:      | <b>17 September 2018</b>                             |
| Subject:   | <b>Environment Agency Update</b>                     |

**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:

| <b>Scheme Name</b>                      | <b>Promoter</b>    |
|---|--------------------|
| • Boston Barrier                        | Environment Agency |
| • Boston Haven Banks                    | Environment Agency |
| • Saltfleet to Gibraltar Point Strategy | Environment Agency |
| • Lincshore                             | Environment Agency |
| • Horncastle Flood Alleviation Scheme   | Environment Agency |
| • Louth Flood Alleviation Scheme        | Environment Agency |

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

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

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

### 1.1 Boston Barrier

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

The Barrier scheme remains on programme:

|                     |               |
|---------------------|---------------|
| Start date:         | May 2014      |
| End date:           | December 2019 |
| Total Project Cost: | £105,109,685  |

#### Update since last meeting

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

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

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

Work activities for the remainder of 2018 include:

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

## 1.2 Boston Haven Banks

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

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

### Update since last meeting

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

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

## 1.3 Saltfleet to Gibraltar Point Strategy Review (SGPSR)

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

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

### Update since last meeting

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

## 1.4 Lincshore (Interim Beach Management Lincolnshire Coast)

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

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

**Update since last meeting**

This year's campaign was completed in June with a total sand nourishment volume of 400,000m<sup>3</sup> placed along the Mablethorpe to Ingoldmells frontage.

**1.5 Horncastle Improvements**

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

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

**Update since last meeting**

The works are now complete and the reservoir operational, having been used successfully over the Easter 2018 period.

**1.6 Louth Improvements**

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

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

**Update since last meeting**

The works are now complete and the reservoirs operational, having been used successfully over the Easter 2018 period.

**1.7 Wainfleet Relief Channel**

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

The Steeping Catchment will be the key pilot for a "Partnership Approach to Catchment Management" (PACM) being promoted through the Lincolnshire Flood Risk Management Partnership, which will involve the development of a long term strategic approach to managing flood risk in the Steeping Catchment, working across a range of partners including Lincolnshire Flood

Risk Management Partnership, landowners, and other key groups such as local councils and the National Farmers Union (NFU).

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

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

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

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

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

### **1.8 Black Sluice Catchment Works**

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

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

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|---------------------|--------------|
| 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 March 2020 whilst we continue to work with partners.

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

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

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

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

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

➤ **Bank Armouring**

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

Modelling will be reviewed to confirm to any further sites requiring armouring in the next two years.

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

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

- Replacement of a section of floodwall along 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 approved allowing the project to move forward.

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

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

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

## **1.10 Swaton Resilience Scheme**

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

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

### **Update since last meeting**

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

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

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

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

## **2. Updates on Other Items**

### **2.1 Comprehensive Review of the Humber Flood Risk Management Strategy**

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

### **2.2 Donna Nook Managed Realignment Site**

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

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

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

### **3. Consultation**

#### **a) Have Risks and Impact Analysis been carried out?**

No

#### **b) Risks and Impact Analysis**

N/A

### **4. Background Papers**

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

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