

Open Report on behalf of the Environment Agency

Report to:	Flood and Water Management Scrutiny Committee
Date:	30 November 2020
Subject:	Environment Agency Update

Summary:

This report updates the Flood and Water Management Scrutiny Committee on Environment Agency activities, primarily in relation to COVID-19 with particular reference to the ongoing delivery of the capital programme and recovery.

Actions Required:

The Flood and Water Management Scrutiny Committee is asked to consider and comment on the detail contained in the report.

1. COVID-19 Delivery Impact

- 1.1 We are continuing to deliver all of our Flood and Coastal Risk Management projects where it is safe for our teams and delivery partners to do so. We are following the latest guidance from Public Health England regarding safe working on construction sites.
- 1.2 We are also carrying out maintenance, operation and repair of our assets, again where it remains safe to do so.
- 1.3 Our current focus remains on how best to deliver the £100m in year Defra Grant-in-Aid allocation efficiently in terms of governance structures and allocation of existing and new resource. We are working on this in collaboration with our supply chain partners.
- 1.4 We remain ready to respond to flood incidents should the need arise and we continue to support partners as our own operational requirements permit. We continue to support our LRFs (Local Resilience Forum) with Mutual Aid in the form of equipment and some staff time.
- 1.5 Overall, we accept that productivity will be impacted yet progress is and will continue to be made and we will seek to emerge from lockdown as an even better organisation.

2. Recovery Programme Update

Background

- 2.1 The Flood Recovery team, led by Peter Reilly as Flood Recovery Manager, is an internal team set up to manage the recovery programme. The team is made up of staff from across Operations and FCRM bringing together the expertise to deliver the programme of works. This is being done hand in hand with our colleagues in Programme and Contract Management (PCM).
- 2.2 The Recovery programme has a value of approximately £50 million and is made up of over 130 individual projects which are scheduled to be completed by 31 March 2021.
- 2.3 The whole programme is being delivered by a range of partners under the various frameworks we are able to call on, including Jacksons Civil Engineers, Arup, JBA-Bentley, Stonbury, and under Public Sector Co-operate Agreements (PSCA), a number of local Internal Drainage Boards – Lindsey Marsh, Black Sluice and Witham Fourth. Using this mixture of frameworks and partners allows us to get the best value for money and making the best available use of resources to return assets to the required standard of service as effectively as possible.

Summary of Progress

- 2.4 Good progress is being made to repair assets damaged during the winter of 2019/20. The Recovery Sub-Programme Board is meeting fortnightly to track, monitor and report on progress of the various projects.
- 2.5 The Programme of works are made up of over 130 projects and currently there is approximately:
- 50 Sites in design;
 - 50 Sites in construction or completed.
- 2.6 However, please be aware these numbers are constantly changing as the programme moves forward.
- 2.7 All of our delivery partners have multiple gangs working over various sites with around 10 live sites at any one time. Many of these are of a smaller scale and on site for around a week at a time; updates on some of the large projects can be seen below. Sites have been completed from all of our delivery partners, thanks to their hard work during the difficult restrictions placed on them as a result of COVID-19.

Specific Site Updates

- 2.8 **Black Sluice Complex, Boston:** In April this year a programme of works began on the gravity sluice and navigation lock at the Black Sluice Complex in Boston. Over the winter of 2019/20, the navigation lock was operated continuously as a secondary gravity sluice and ensured we were able to

manage the high levels in the South Forty Foot Drain during the prolonged heavy rain. The work we are now carrying out is to mitigate the expected 'wear and tear' that will help ensure these critical assets remain functional during flood incidents. In addition, the navigation lock is due for its 10 year detailed inspection service to make sure our river users can safely gain passage to the South Forty Foot Drain.

- 2.9 The first phase of this programme has been completed on the gravity sluice, and involved replacing the hinges to the guillotine gate and fitting new straps to the tidal pointing doors. Because of the importance of this flood defence, this first phase was completed during the Coronavirus lockdown period, with our contractors applying the government guidelines to safeguard staff and the general public.



Figure 1: Works being completed to the gravity sluice in May 2020

- 2.10 We are now into the second phase, a far larger piece of work focused on the navigation lock which involves a full drain down of the structure. This is to allow specialist contractors to carry out detailed inspections of all parts of the lock, replacing and repairing where required. We are also carrying out general maintenance and service to the site, plus a 3D survey of the whole structure will be taken to provide an extremely detailed model of the lock for our records.
- 2.11 The lock has been closed until the end of September to navigation, and works are now progressing at pace to ensure we have both outfalls operational ahead of the winter period.



Figure 2: Stop logs lifted in to drain down the lock

- 2.12 The outcome of the detailed survey will decide what further works are needed for phase 3 of the programme. Every step is being taken to make the most of the current closure of the lock to avoid further impacts to navigation along the South Forty Foot Drain. We also have some further works for the adjacent gravity sluice programmed in for 2021, which may be packaged with the output of the detailed survey.



Figure 3: Under the road bridge looking downstream to the lock

- 2.13 **Barlings Eau:** Our contractors, Jacksons Civil Engineering, have established a site compound and set up access to the piled location. Work has progressed well and it is anticipated that work will be completed at this site by the end of 2020, subject to ground conditions and COVID-19 restrictions.



Figure 4: Existing piles on left hand bank of Barlings Eau

- 2.14 **Timberland Delph:** There were three sites of works along the Delph. By the time of the RFCC meeting all work on these sites should have been completed. These include the locations where piping was taking place at the downstream end of the Delph. Works have been undertaken to strip the existing top soil and place new clay within the bank.



Figure 5 (Left): Repairs to right hand bank of Timberland Delph and Figure 6 (Right): Repairs to right hand bank of Timberland Delph with new grass cover (site of piping defect)

3. Boston Barrier

- 3.1 The Boston Barrier scheme once finished will provide better protection to over 14,000 properties against tidal flooding and is deemed a 'National Priority Project' within the Environment Agency's Six Year Programme.
- 3.2 The team recently closed the temporary bypass channel that allowed vessels to navigate past the barrier while it was being constructed. It is now possible for boats to safely navigate through the tidal flood defence, with the barrier gate resting flush on the bed of the River Haven.
- 3.3 BAM Nuttall is continuing to work in accordance with government guidance and there have been no reported cases of COVID-19 on site so far. The team continue to monitor and adjust to the evolving guidance to ensure this Environment Agency National Priority Project can continue safe and well.
- 3.4 The construction team is now in the process of filling the bypass channel and undertaking additional works downstream of the barrier which will facilitate an enhanced level of protection to a number of the 14,000 properties covered by the project before the overall completion of the scheme.
- 3.5 The Barrier itself should be operational by autumn this year with the project as a whole completed by the 2021/22 financial year.
- 3.6 Next steps for the scheme include installing over 2500 tonnes of steel sheet piles for new flood walls along the North Bank, the installation of a replacement flood gate at the Port of Boston wet dock entrance in 2021, and associated works to tie the project into the Haven Banks Improvement Scheme – a separate Environment Agency project which will raise and strengthen 5km of existing flood banks running from the Barrier towards the Wash.

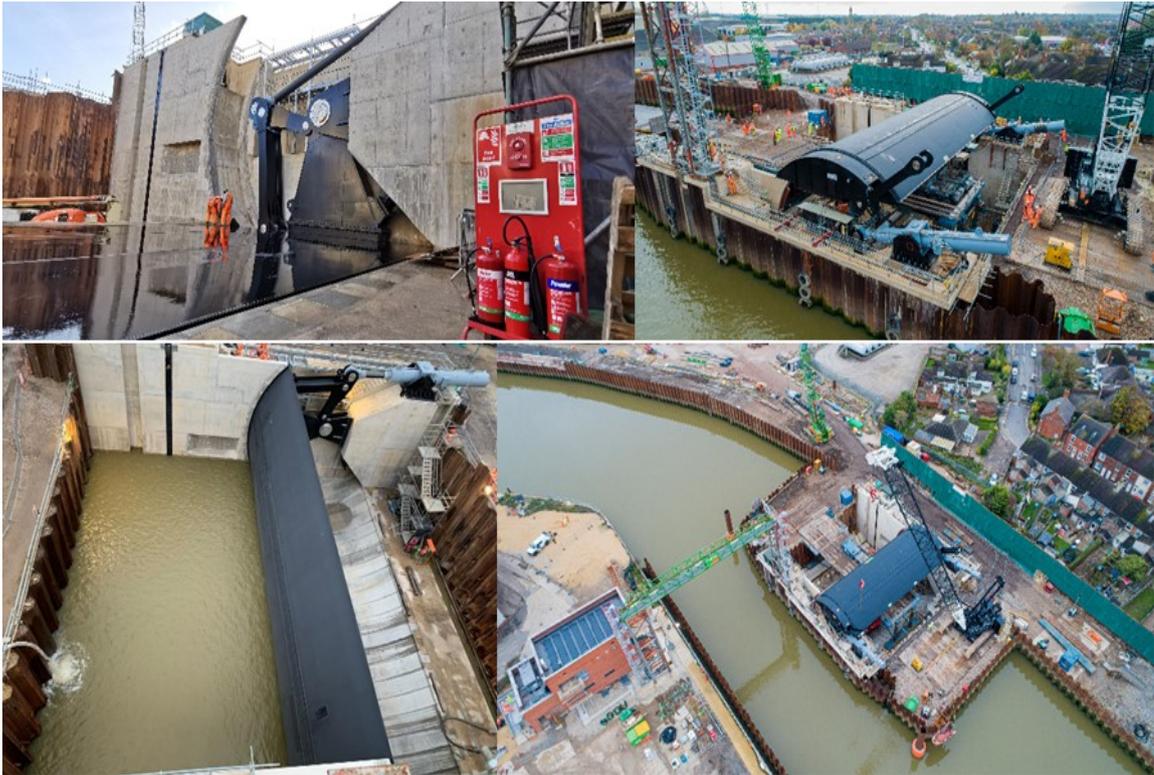


Figure 7: Assorted pictures of Boston Barrier

4. East Coast

Interim Beach Management Lincolnshire Coast 2018 to 2021 (LBM2018to21)

- 4.1 This is a beach re-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.
- 4.2 This year's campaign was successfully completed at the end of July with a total of 414,232m³ being pumped and profiled on the beaches at Mablethorpe, Trusthorpe, Sutton on Sea, Boygriff, Huttoft, Moggs Eye, Chapel Six/Wolla Banks, Trunch Lane, Ingoldmells North and South. The project team worked together to overcome a number of challenges including delays and new operating procedures due to COVID, managing segregation of works from increased numbers of visitors to the area and working with contractors from the Tritton Knoll and Viking Link projects to ensure all parties' marine and land activities did not clash.
- 4.3 As part of the additional works programme the contractors will also be carrying out repairs to Ingoldmells and Trusthorpe outfalls, replacing some navigation markers and completing site investigations to inspect the sea wall to ascertain the condition to feed into the Saltfleet and Gibraltar Point strategy.

Saltfleet to Gibraltar Point Strategy (SGPS)

- 4.4 The Saltfleet to Gibraltar Point Flood Risk Management Strategy was approved in December 2019. Beach re-nourishment remains the most cost effective solution in the short-term as we keep pace with climate change, however the strategy identifies that there will need to be a transformation in the future in how we manage tidal flood risk.
- 4.5 The Outline Business Case for annual nourishment between 2021 and 2025 was secured in August 2020. The new contract will be in place before the 2021 Spring campaign. This will run alongside the development of a major project to deliver the longer term ambition of the Strategy, Enhancing the Lincolnshire Coast. The programme of works will develop the Full Business Case (FBC) for a major project with an approximate value of £450m, to be delivered over 20-30 years. The programme aims to secure partner, stakeholder and supply-chain commitments, public confidence, and investment approvals for a construction award in 2030. This investment will underpin the partners' vision to transform the resilience of the coastal communities, transform our approach to asset management on this coastline and adapt to climate change delivering whole-life benefits in excess of £4.1bn over 100 years, and realise significant cash and carbon savings.

5. Boston Haven Banks

- 5.1 A number of low spots exist along the Haven banks downstream of the proposed Barrier location. To keep pace with sea level rise and maintain the required standard of protection for Boston, these low spots and works to raise earth embankments to 6.50m AOD are required.
- 5.2 A programme of works will be undertaken over the current six year Medium Term Plan (MTP) in conjunction with the Barrier scheme as described in the various phases of the Boston Combined Strategy.
- 5.3 Work continues to progress on the Boston Haven Banks project, which is classed as essential work by the Government. Contractors have strict precautionary measures in place in line with government guidelines and coronavirus restrictions, to ensure the health and safety of both workers and the general public.
- 5.4 Work has commenced on both embankments and progress is steady, with the works remaining on programme. The majority of the earthworks have been completed and are due to be finalised by November. Repairs to Skirbeck outfall are currently underway and progressing well.
- 5.5 The Jolly Sailor - In the first phase of works, a sheet pile wall was installed at The Jolly Sailor. Works are now ongoing to finish landscaping the piled wall into the surrounding area and some reinstatement works to the garden.

- 5.6 Hobhole – during the project an issue arose from Witham Fourth’s buried pipework at Hobhole Pump Station. We have revisited the design to accommodate their repair works and ensure a 6.5m defence height is still met.
- 5.7 Pilgrim’s Memorial – a new embankment has been constructed in front of the old car park for the Pilgrim’s Memorial. This has led to an increase in the available space for the public to park safely and engage with the memorial and the upcoming Lincolnshire County Council (LCC) artwork installation.
- 5.8 Boston Horsetail Survey - An ecological survey has been carried out to identify the rare and protected species of plant Boston Horsetail. Numerous specimens have been found in the area near Slippery Gowt and this is one of the only places in the country that the plant can be found. The plants will be safely removed and looked after during the works to avoid any damage, before being replanted when work is complete. The Environment Agency will also replant some of the Horsetail at two alternative locations to try and encourage its growth.
- 5.9 Grass seeding – grass seeding on completed sections of the bank has begun and will continue as earthwork sections are completed. Footpath closures will remain in place into next year while the grass establishes.

6. Steeping Catchment

- 6.1 The Steeping River Catchment Action Plan Action 2020+ was released on 21 April 2020 to partners and the community.
- 6.2 The plan was drawn up by the Steering Group chaired by Robert Caudwell. This group feeds into the Lincolnshire Flood Risk and Water Management Partnership (LFRWMP), chaired by Norman Robinson.
- 6.3 COVID-19 restrictions meant we were unable to host a public drop-in event linked to the release, but the plan is available publically on East Lindsey District Council's website. People are also able to email any questions they may have.
<https://www.e-lindsey.gov.uk/flood2019>
- 6.4 Newsletters informing the community on the work of the Steering Group continue to be distributed at key locations in the town and areas affected by flooding.
- 6.5 There are four Catchment Action Plan Themes: improving the flow through the system; a resilient community and infrastructure; strengthening and maintaining defences; and flood water storage. Each of these themes has its own list of actions, as well as a fifth list of additional actions not being taken forward at present, but are still highlighted and recorded.
- 6.6 Partners are now working hard to deliver the actions in the plan. The first phase of the targeted dredging work commenced in September 2020. At the

time of writing this has removed silt from the first 300m of the Wainfleet Relief Channel in the Steeping River down to Salem Bridge near Batemens Brewery. The first settling lagoon on Brewster Lane is full and silt is now being pumped to a second lagoon where the Steeping and Relief Channel re-join. This will take silt from Salem Bridge to Merryfields Farm on the Steeping and the lower section of the Wainfleet Relief Channel.

- 6.7 It is expected that Phase 1 of the dredging will be completed before Christmas with equipment being removed early in the New Year. Phase 2 of the dredging will commence in September 2021 with preparations and lagoon construction in advance of this.
- 6.8 The group has continued to look ahead at delivering the other actions in the Catchment Action Plan. A bid for funding has been made to the six year capital programme and a decision is still awaited from the Ministry of Housing, Communities and Local Government (MHCLG) on the success of the bid for European Structural Investment Fund (ESIF) money.

7. Consultation

a) Risks and Impact Analysis

N/A

8. Background Papers

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

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