

Open Report on behalf of the Environment Agency

Report to:	Flood and Water Management Scrutiny Committee
Date:	24 February 2020
Subject:	Environment Agency Update

Summary:

To update the scrutiny committee on Environment Agency activities, primarily in relation to the Autumn flooding, response and recovery.

Actions Required:

The Committee is invited to note the report.

1. Key Facts and Figures on Autumn Flooding

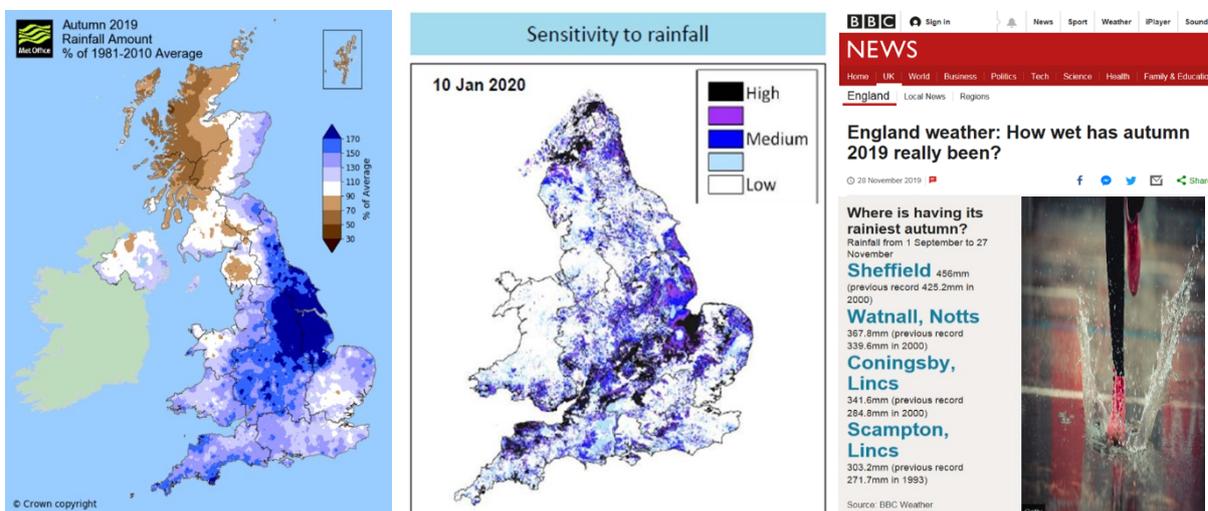
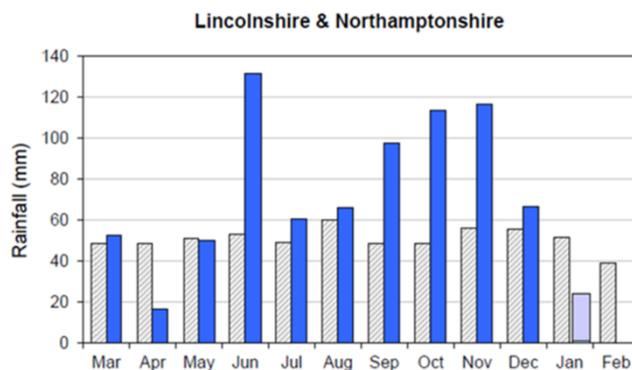


Figure 1, 2 and 3: UK rainfall compared to average, Sensitivity to rainfall and a news report highlighting the wet autumn compared to rainfall records

- 1.1 The images above show recent rainfall compared against average rainfall and the sensitivity of areas to rainfall. It can be seen that some areas in Lincolnshire saw 170% of its average rainfall during autumn 2019, with Lincolnshire being one of the worst hit areas in the country. The sensitivity to rainfall area map is a reflection of the amount of water in catchments and how sensitive Lincolnshire will be to any further rainfall.



Rainfall

January 2020



Lincolnshire & Northamptonshire

Figure 4. Lincolnshire and Northamptonshire rainfall chart

- 1.2 The above chart highlights the monthly rainfall within the Lincolnshire and Northamptonshire area. The June rainfall can clearly be seen as a spike, this was then followed by a further 7-8 months of consecutively higher than average rainfall.
- 1.3 There has only been 3 weeks within the last 7 months where the incident room was not open. The incident room was being opened for much lower levels of rainfall than previously, due to the saturation and responsiveness of catchments.
- 1.4 The Local Resilience Forum (LRF) only came into force at one acute stage, for the Barlings Eau breach.
- 1.5 Overall, in Lincolnshire, less than 1% of agricultural land flooded from main river sources and only 8 properties.
- 1.6 Three acute issues were seen; at Short Ferry and the Barlings Eau, Timberland Delph and Billingham Skirth.

2. Recovery Updates

- 2.1 All affected main rivers were inspected and asset conditions recorded; as the catchments and raised river embankments dry out, we are undertaking further asset inspections.
- 2.2 There are currently more than 160 defects requiring repair and this number is still increasing.
- 2.3 22 priority sites for 2019-20 have been identified, including the works undertaken at Barlings Eau and Timberland Delph, described in further detail below.
- 2.4 We have been sharing targeted weekly updates with affected communities and also been reiterating landowners' riparian roles, rights and responsibilities in managing flood risk.
- 2.5 The EA are allocated and spend public money on flood management activities in line with Government policy and treasury rules. Our priorities, as directed by Government, are on people and property.

3. Barlings Eau and Short Ferry

- 3.1 Work to repair the breach using 12m long steel sheet piles was completed on 20 December; pumping to dewater then commenced.

- 3.2 On Friday 7th February, two additional Environment Agency 8 inch pumps were set up in the Witham 3rd IDB Stainfield Pumping Station compound. These are both now working to supplement the pumps set up on the opposite side of Short Ferry Road. Eventually one will be left with the IDB to provide temporary land drainage pumping at this site until the permanent pump is up and running again.



Figure 5 and 6: New pumps stationed at the Stainfield pumping compound

4. Timberland Delph

- 4.1 Work to reform the embankment has continued and the embankment is now up to its finished height.
- 4.2 There is still work to be done to finish the final designed profile, install the embankment protection and grass seed the finished surfaces.
- 4.3 It is currently estimated that work will be completed and the site demobilised by mid-March 2020.

5. Boston Barrier

- 5.1 The primary Boston Barrier gate was delivered from The Netherlands on the 3rd November and successfully installed and lowered into its open position after being connected to its two hydraulic operational rams and temporary hydraulic systems before Christmas 2019.
- 5.2 The Barrier has been raised into its full defence position for the first time in order to perform wet testing. The Barrier passed the leakage tests and are now moving onto the ballast tests where the gate will be filled with 400 tonnes of water.
- 5.3 Scour Protection Mats are being installed upstream and downstream of the Barrier location to manage any potential river erosion that could occur. Once complete, the bypass channel for navigation will be closed and backfilled in order for the barrier to be fully effective with navigation diverted permanently back through the new barrier channel.
- 5.4 Next steps for the scheme include piling along the existing Port outer quays and installing new flood walls along the boundary of the port estate along with a number of new flood gates followed by the installation of a replacement flood gate at the Port of Boston wet dock entrance in 2021 and associated works at the Maud Foster outfall to tie the project into the current Haven Banks Scheme, an independent project which will raise and strengthen the existing flood banks running from the Barrier towards the Wash for a distance of 5 km.
- 5.5 The primary Barrier will be fully operational by summer 2020 with the project as a whole programmed to be complete within the 2021/22 financial year.

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