

Notes from Public Flood Meeting, April 25th 2024

Chair: Mayor, Cllr Matthew Wilkinson opened the meeting at 7pm

Welcome (incl. housekeeping) and Introductions

Encouraged to treat everyone with respect and explained how the meeting would be run.

Pete Reilly – EA – Operations Manager

Leigh Edlin – EA – Area Director

John Ray – EA – Senior Advisor

Paul Arnold – EA – Catchment Engineer

Rachel McMahon – EA -

Jonathan Challon - ELDC – Services Manager for Safer Communities

Eddy Poll – Chairman of Regional Flood & Coastal Committee

Matthew Harrison – LCC – Flood and Water Manager

Matthew Moore – Anglian Water – Strategic Flood & Partnership Manager

Martin Shilling – Witham Third Internal Drainage Board – Director of Engineering & Technical Services

Mick Rawlinson – Gleeson – Land Director

Jamie Moran – Gleeson – Technical Director

Presentation from EA

Introduction from Leigh Edlin

This is our 3rd public meeting in HC since Storm Babet – but the first time with time and space to talk through the details. If we can't answer questions, we will take them away and come back to you.

Pete Reilly will be talking through the presentation

Paul is a chartered engineer and can answer the technical questions. We are sure between all of us here that there will be someone that can answer your question.

Today is not the end of the discussion about this – this is multi-faceted and we will continue to work with everyone to manage flood risk in Horncastle.

Pete Reilly delivering the presentation

Teams who do maintenance works and the emergency response teams report to Pete.

Slide 1 – Introduction to panellists

Slide 2 – map showing the location of the reservoir and FAS.

1 to 100 design standard – 1% chance of the flood happening in any given year. It is at the limit of what we could justify and afford within the Treasury limits. HTC still pays towards the maintenance costs.

Slide 3 – Schematic showing the reservoir scheme design flows. Shows the feeds into the Bain above and below the FAS.

A cubic meter is 1000 litres – and 7000 litres are allowed to pass through the reservoir, anything above this will be taken off and stored.

The design flow through Horncastle is 14 cubic metres per second – this may mean flooding to roads and pavements, but will not affect people homes.

Slide 4 – 6 – How does it hold back water?

Bain passes through the control structure - Hydroslide and penstock

Water normally passes through the structure unimpeded.

The penstock manages the land drainage next to the reservoir and feeds it downstream of the FAS.

The control structure will peel off anything higher than 7.1c metres and store it in the reservoir.

The hydroslide is passive, not powered. As water levels raise, the float on the hydroslide causes it to close to reduce the flow of water through to the Bain and store it in the reservoir.

Slide 7 – Sluice gate (penstock)

Needed to drain agricultural land next to the reservoir.

Checked monthly to check movements.

Minor mechanical service every 6 months

Slide 8 – Sluice gate control

Investigations have uncovered that there were actually 2 override switches – One was set to automatic and one was set to manual, and the manual one overrode the automatic one. This system has now been changed – and there is only one switch operational now.

Slide 9 – What happened in October?

Sluice was thought to be in auto mode, but it turned out that it wasn't.

Needed to be fully closed at 11.45am

Field team arrived at 2.15pm – 2.5 hrs after it should have closed

Some additional water, therefore, passed downstream – 2.5hrs where the water went into the reservoir and then passed through the agricultural channel and through the sluice gate (penstock)

Slide 10 – Understanding the impact

Independent, international consultants modelled the system and simulated the flooding.

Used Met Office data as well as local gauges.

They were asked to simulate what actually happened and what WOULD have happened if everything had worked as should.

Slide 11 – Rainfall simulation

The worst rain fell south of the reservoir, directly over Horncastle

Slide 12 – Storm Babet Rainfall

Met Office images and we were also using rain gauges.

The reservoir measured between 80-90 ml. 100ml came through downstream of the reservoir and to the east.

Slide 13 - Calculated flows passing downstream from the reservoir and that from the Hemingby Beck and West Ashby Tributaries

Nearly 8,000 cubic meters passing the reservoir, whereas 312,000 cubic metres flowed from tributaries and on into Horncastle

Slide 14 – Modelling Conclusions

Storm Babet was much bigger than the reservoir standard

Up to two months rain in a day

Significant runoff from the other drains – Thunker, Ings and the Waring. These are not regulated by the reservoir.

If the gates had operated as designed – the result would have been the same, just a delay in time.

Slide 15 – What happens next?

Ms Atkins had said that it seemed that the EA were marking their own homework – we were not – we are the proper people to review our assets and what happened – the other results were produced by an independent consultant.

We have committed to revisiting the possibility of a FAS on the River Waring and will look at this and advise the Council.

There are some other smaller issues with minor bank works to fill in localised spots and these will be done.

There is a long-term commitment from the team to help reduce flooding within the area in the future.

Passed back to Chair, who opened the floor up to questions.

Question 1 from the floor

Chief Engineers report – there were some issues raised that the asset wasn't working to standard and why wasn't this rectified? Something clearly wasn't happening with the checks and works required. What confidence can we have in the asset?

Response:

Paul Arnold - We recognised that there were shortcomings with the asset. There was a problem with the issues being picked up between staff teams changing over.

Matt – is this issue sorted out and this will not happen again?

Paul – we have changed the signals that the system sends to make it clearer to the staff receiving the message, what the issue actually is.

Questioner

This isn't good enough – issues need to be fully documented and acted upon.

Response:

We did a simulation about 9 months prior to Storm Babet and it worked but then issues arose. We believe that we have now got to the root of the problem and these issues would not happen again.

Question 2 from the floor

Relates to the staffing of the EA – thought the report was a disgrace – the staffing errors, calls that were not actioned etc. How does the control work? Where are the EA officers at the time of an incident?

Response:

There was an incident window of 30 minutes to activate things manually, remotely, before having to send the field team out. 365 / 24 / 7

Peter was at Kingthorpe at the time of the flooding after coming off a 7 day shift.

Questioner

The EA is coming across like a secret society – can't get hold of you, can't talk to anyone – now seems disjointed – some industrial action. Doesn't appear to be coherent in the working.

Response:

Pete - Working shifts usually work very well, but sometimes these things aren't good enough. The warning was for 38mm of rain. If we had a forecast that was greater, then the shifts / working would have been changed.

Question 3 from the floor

We would have flooded either way. As the gate opened, the water went down within an hour, even though it was still raining. Why did the water go down when the gate was opened?

Response

John Ray – there are multiple rivers / drains in Horncastle. The water level on the flood plain does go down quicker than the rivers. On the Bain, the river took several hours to go down.

The Waring and Thunker Drain came up and went down very quickly, and this is how things happened in previous years – 2019 and 2014. This is typical of a river with a natural catchment. We've looked at it many, many times – what we saw in the level of the Waring is what happens naturally.

There is an issue at the swimming bath sluice, and they visited at 3.30am for the first reports.

Opened the sluice slightly and were due to come back later and open it further if required.

Unfortunately, due to events across the county, they were unable to get back to open it. However, various reports suggest that the sluice gate was fully opened by mid-afternoon – this was NOT an EA action – someone else must have done it. This does not have a significant impact further upstream. They have now automated the swimming bath sluice, so operatives do not have to attend. It controls water between the Old Bain and the Canal. We will be leaving it open all the time, and will monitor the results that this has on the Old Bain further downstream.

Question 4 from the floor

Trigger time of 11.45am – if this is wrong it would make all your figures wrong. I believe that the river was above 7 cubic metres a great deal earlier, so should have shut approx.. 8 hrs earlier.

Response

Pete – back to slide 10 – this is a factual report, by an independent, international consultant. Anyone is able to challenge the facts.

Question 5 from the floor

I am the landowner that phoned at 11.41am, not as your report states, 12.30. I was down at Tesco at 8am and saw the levels in town were particularly high. Wife advised that there was no water in the reservoir. I checked the reservoir at 11.30, then contacted the EA. A couple of EA team were diverted from Boston, but Mrs Harrison spoke to the operatives and they told her that they had come from Pocklington.

Response:

Based in the Boston depot – they were travelling from Boston to Kirkby on Bain and then were diverted to Horncastle. Apologies for the facetious comments made by the operatives. These operatives answer directly to Pete. There isn't one key for that one lock – there are various keys. The report time is recorded at GMT, which is why it appears that there is a one hour difference.

Question 6 from the floor

Kirkby on Bain – 55cm inside and 85cm outside. Rescued by firemen. I do not believe the conclusion that the same level of flooding would have happened, just one hour later. Had the sluice gates been closed in response to the 7.17am, the results would have been greatly different. Wanting to get a group of people together to raise a Class Action suit, for uninsured losses.

Response:

Leigh Edlin - The report is by independent consultants. We are a public sector organisation and it would be easy to say that we are liable, but the report shows that the impact would have been the same if the system had worked. The information is publicly available and can be challenged, and if you can prove that the report is wrong, then you can put a claim in against the EA.

Chair – invited Matthew Harrison step in and explain about Section 19s.

Matthew Harrison - When properties have been internally flooded, we undertake section 19s to understand what happened and make recommendations for the future. We are currently dealing with over 240 cases, which is a huge volume, so have had to employ consultants to help us get these reports done. Our target is to get all of them done by the end of August. A company called GeoSmart will be coming into town next week for the Horncastle investigation. It will look at the town as a whole, and is completely separate to the EA's investigation. GeoSmart are also conducting a peer review of the EA's report, and they are estimating that it will take 10-14 days to complete the review.

Chair – emphasised completely independent report, completed by a different independent company that have been commissioned by LCC.

Question 7 from the floor

2 managerial people were available close to site – Mr and Mrs Campbell – within 5 minutes of the reservoir – why weren't they called on to help open the penstock?

Response:

Pete Reilly - Because they do different jobs – the field team do these jobs.

Chair – we need to look at how can we work better together? We are here on the ground and are willing to help.

Question 8 from the floor

2019 was a worse storm than Storm Babet – and it worked then, with only one property flooded. The scheme has worked perfectly 17 times. Why are you blaming Hemingby Beck and West Ashby Beck? Have you measured the rainfall on these becks? The culverts limit the water flow and if it is heavy rainfall, then his garden would have flooded?

Response:

In 2019, the switch that we didn't know was in the system, must have been on auto at that time. The rainfall was measured using Met Office data. We then used that recorded rainfall (Flood Estimation Handbook), looks at how saturated the ground already is, ground type etc., We've got recorded water levels upstream of reservoir, at reservoir and downstream of reservoir – we've got a gauge at Victoria Mill and most of the water came downstream of the Mill. As we know what came through Horncastle, and we know what came through the reservoir, we can work out what came from becks in between.

The catchment was previously saturated and then we got all that rain.

Question 9 from the floor

What evidence are the section 19 investigators going to gather? Are they talking to people or just looking at waterways?

Response

Matthew Harrison - The investigators are coming in next week, they have already been in contact with HTC and will visit all of the affected properties and there is also the opportunity to complete a questionnaire and provide images.

Questioner

Most of us have photographic evidence of levels etc., which need to be fed into the report.

Response

Good – we need these in order to get a complete picture.

Question 10 from the floor

For Matthew Harrison – at the Victoria Atkins forum, Cllr Davie quoted that we had a duty to look at each flooded property and we won't let anyone off the hook. I flooded in 2019 and I have only just received my section 19 report for that incident, in March 2024.

Response

Matthew Harrison - Happy to speak to anyone afterwards about specific issues. Apologies for the delay in sending you the report. It had been available within the public domain, but it should have been made clear that it should have been sent directly to you (resident) as well.

Question 11 from the floor

What specifically are you doing to address the issues raised within your report?

Chair – to summarise:

swimming pool sluice gate is now automatic.

Double switch on system has now been taken away.

We are looking to join forces with EA and assist on the ground.

Pete Reilly

Staff were completely overwhelmed at the time of the incident.

The message that came through initially, was FOR INFORMATION (not action) – this has now been changed on the system. This had meant that when the staff prioritised incidents, Horncastle wasn't a priority at that time.

We are training extra people to double the current level, but full training takes up to 2 years.

Question 12 from the floor

It appears from your report that the design did not comply with 2 British standards and another standard?

Why, if you are relying on automation, do you not install a backup system?

Response

Paul Arnold - The report is a little vague and says MAY NOT have been designed to standards. We have looked into this, and for the majority of components we do have a certificate. But where there are two parts working together, there should be an extra certification to confirm that the two parts are compliant with each other. One of these is missing and we are rectifying this.

There is a backup to it, but they didn't work in time. We built in a failsafe of 8.5 hours, but even this is not enough. We ended up sending out the field team to do this manually.

When the alarm goes through to control, it will now be marked as FOR ACTION, not for information.

Question 13 from the floor

Why wasn't the second switch found earlier?

Response

Paul Arnold - It wasn't a switch that we had requested – it is an electronic switch that had been built into the system. This has now been removed and the issue will not reoccur. We had an entire system test earlier in the year, and it passed without fault.

Questioner

Is the valve a safety critical part? Will it fail open or closed?

Response

Pete Reilly - No it is not, and it will fail in whatever position it is currently in. We have now left the penstock partially closed, which will help to reduce future incidents.

Question 14 from the floor

Feels that it is quite shameful that VA didn't attend tonight. I live on Langton Hill and when it rains, there is a river of topsoil from agricultural land, that comes down Langton Hill and the rivers turn brown. Are the EA doing anything to prevent this from happening?

Response

Leigh Edlin – Agricultural run-off is an issue in Lincolnshire. We do have teams that work with landowners to look at natural flood management schemes to help them reduce run-off etc. But these things take time to see the benefit. It is not a solution, it is part of a solution.

Question 15 from the floor

Are you looking at a system on the River Waring? How much is this likely to cost and how would we get the money?

Response

Leigh Edlin - Around 10 years ago it was looked at and was found not to be economically viable. We will revisit this, but as things cost more now, there is a possibility that it would still not be economically viable.

Question 16 from the floor

We know it failed – what are we going to do in future?

Are we going to clear out the Waring? It's only been done twice in 33 years?

They seemed to clear it backwards.

Response

Leigh Edlin - It was last done in 2021, it is done when the silt reaches a certain level, not on a regular basis.

Pete Reilly - They clear it from downstream to upstream, but will speak to you afterwards to clarify.

Question 17 from the floor

To LCC – why were the schools not alerted to close earlier than they actually were? Not alerted until approx.. 1pm, by which time there was already flooding within our school.

Response

Matthew Harrison - The Lincolnshire Resilience Forum coordinates a multi-agency response with all information coming in at these times. Ultimately, the final decision should probably be from the

Headteacher of the particular school, as they are on the ground and will know individual circumstances.

Question 18 from the floor

Ian Clark – sits on Witham 3rd IDC – why cannot John Harrison et al have access to the sluice gate? We could help.

Chair – as mentioned previously, we will be looking at other ways of working with boots on the ground.

Response

The EA are looking into some changes that could be made in this respect.

Question 19 from the floor

The EA said initially that the sluice gate should have started going down at 3.30am in the morning. The subsequently they said that it should have been finished coming down by 11.45am. There is a discrepancy here. Could any of the Horncastle residents tell us exactly when the Bain and Waring started flooding?

Answers from floor:

- About 7 o'clock in the morning
- I rang the EA at about 9 o'clock and was told that they knew what was happening and were monitoring it.

Question 20 from the floor

Did not seem to be a civil contingency plan in place. Is there one?
People were crying out for sand bags.

Response

Matthew Harrison - The Lincolnshire Resilience Forum would normally declare an emergency and an emergency was not declared in Horncastle that night, as it seemed that the emergency services were dealing with what was happening before them.

Sand bags – there is no obligation on any authority to distribute sand bags, but they are aware that some authorities do, where resources allow.

Brian Burbidge for HTC – we do keep a store of empty sand bags – he went down to Hemingby depot and got sand from there and there was a team of local people as well as Council staff helping to fill sand bags. Although there is no requirement for us to do this, we will always try to help out.

We were not asked to open the Stanhope Hall until later on, by the police and it was opened within minutes of this request, by a member of staff who had been flooded out herself. We were here offering shelter until around 3am.

-oOo-

Chair thanked everyone who attended and helped on the day / evening.

If there are further questions, you are welcome to attend the next Council meeting or send them through to the Clerk, who will get answers and we will post them onto our website. This is not the end of this discussion.

Meeting was closed at 9.06pm