# Storm Babet



# Flood Alerts & Warnings received 20<sup>th</sup> October 2023 onwards for WHDB districts

Flood alerts



Flooding is possible - be prepared

14 notifications





Flooding is expected - act now

17 notifications

As 11, November 2023



# Emails, calls and contacts to the Board Friday 20<sup>th</sup> October 2023 onwards for WHDB area



80 Enquiries received (This figure does not include direct emails) As 7 November 13:30



#### 15 enquiries

related to EA Main Rivers

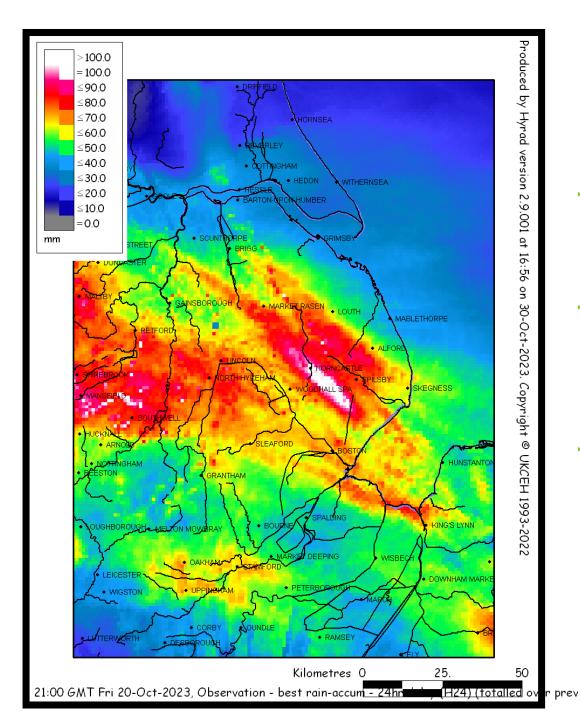


### Witham and Humber 'versus' Storm Babet

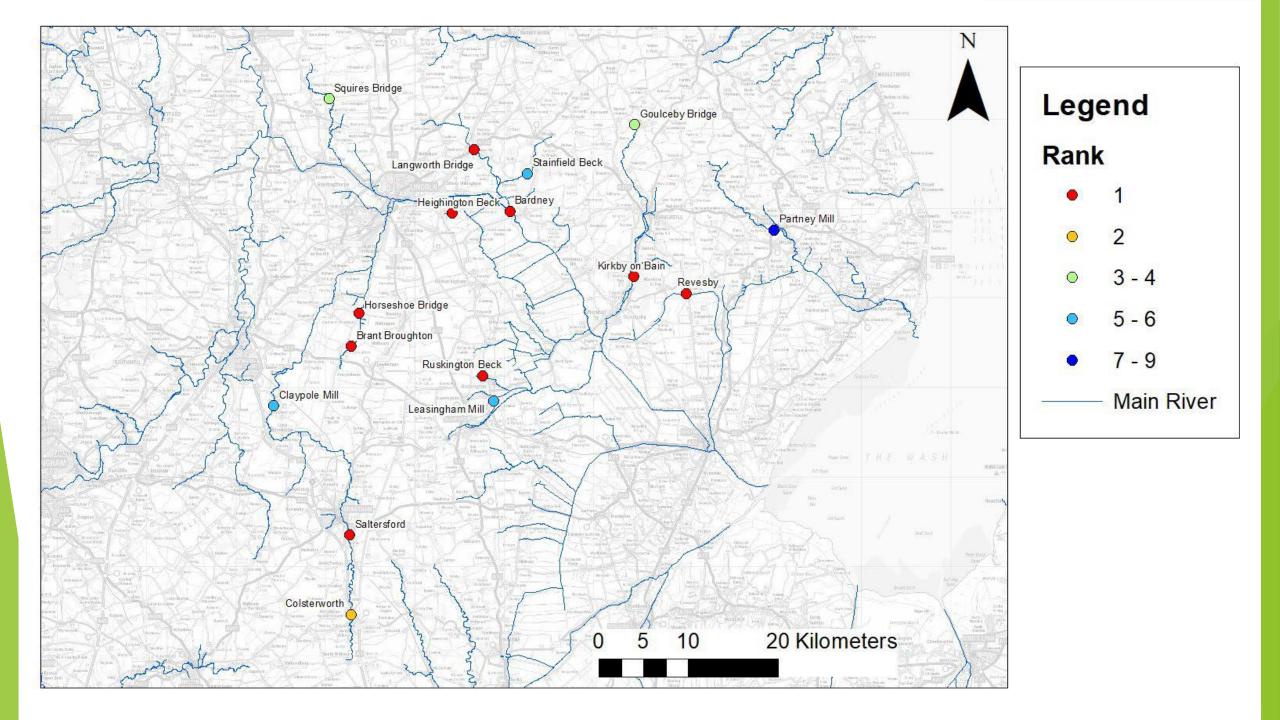
Met Office

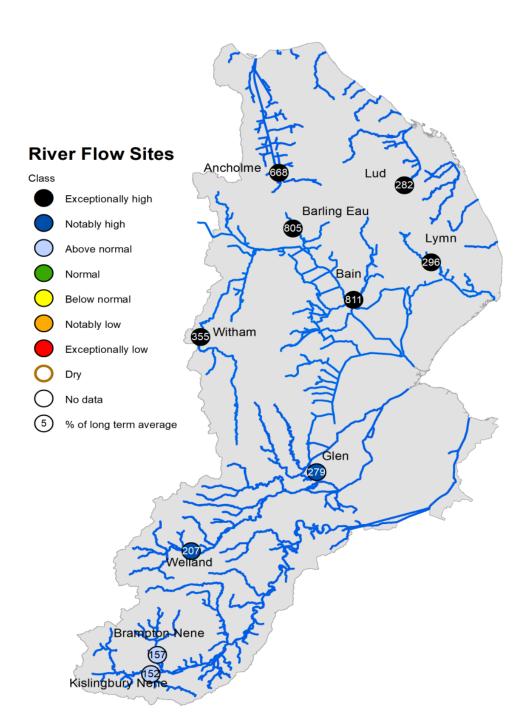
- Met Office and media outlets confirmed Storm Babet was due to hit the UK (18<sup>th</sup> to 21<sup>st</sup> as per Met Office)
- Heavy rainfall from 18th October, with Lincolnshire feeling the worsening weather.
   On Friday 20<sup>th</sup> October, a months' worth of rain was likely to fall within the 24 hour period.





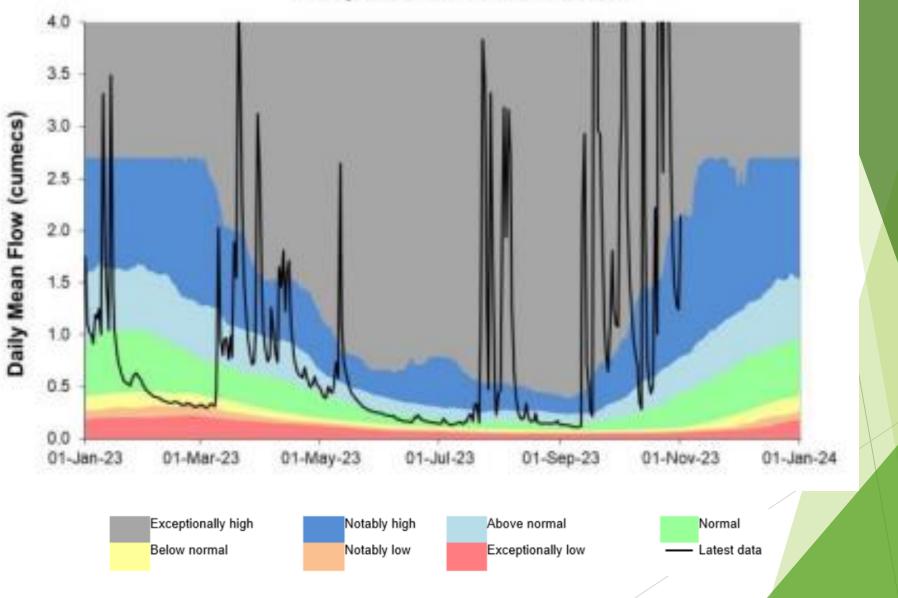
- 24 hour rainfall accumulations up to 21:00
  Friday 20<sup>th</sup> October 2023
- Note the white band [greater than 100mm or 4 inches] of rainfall upstream of Woodhall Spa and over Horncastle.
- Large accumulations [70 80mm or 3 inches] over the upper Witham were also recorded.

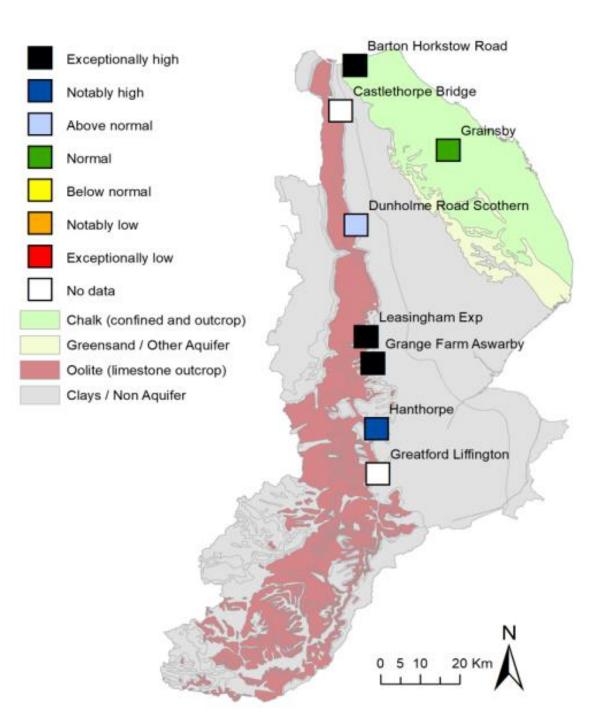


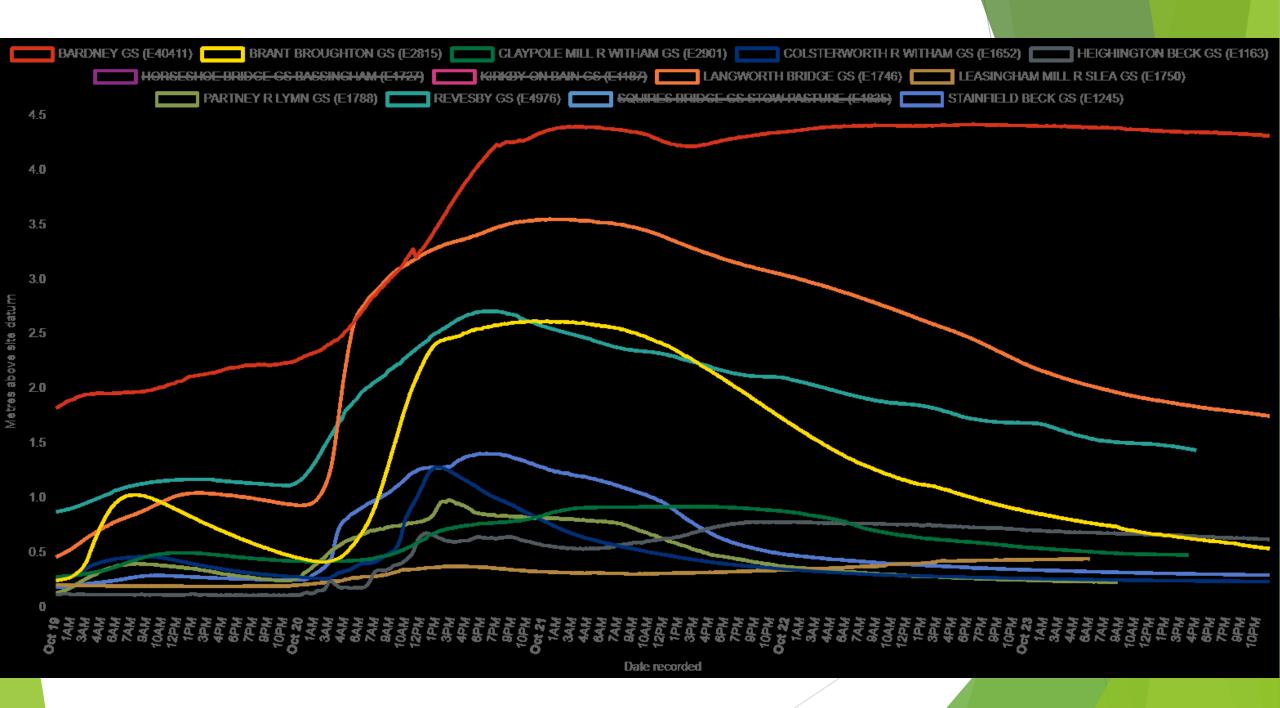


- Barlings Eau at Langworth gauging weir over 8 times monthly flows for October.
- River Bain at Coningsby Weir 811% of normal monthly recorded flow. Although much of what flowed down the valley missed the gauging station.....
- River Witham at Claypole, 3<sup>1</sup>/<sub>2</sub> times normal monthly flows.

Rase Bishopbridge, River Rase Ranking used data from 01/05/1957 to 31/12/2022







## 18 - 21 October 2023 - Storm Babet (dates as defined by Met Office) Ongoing Board response...

- Following Storm Babet, the aftereffects have been felt, with IDB Teams working tirelessly to managed the IDBs' watercourses and assets like pumping stations.
- Issues faced:
- I months worth of rain in 24 hours. Rain gauge data show totals between 80mm and 100mm up 11pm 20<sup>th</sup> October.
- EA maintained Rivers which have breached, overtopped and suffered significant bank seepage - adding water to the IDBs' systems/overwhelming the assets.
- Pumps being pushed to their designed limits, and beyond. Most pumping asset are between 40 and 50 years old.
- Continued pressures on IDB systems and team members when the storm passed.
- The Boards' officers continuing to work in 'response mode' to monitor assets and manage the Boards' watercourses.

Storm Ciaran Wednesday 1<sup>st</sup> and Thursday 2<sup>nd</sup> November 2023 adding to already difficult conditions within Lincolnshire and Northeast Lincolnshire. Further rain, high winds, and further flood alerts and warnings expected.



## Friday 20<sup>th</sup> October 2023

- Flood Advisory Service (FAS) stood up for the Lincolnshire & Northants regions - IDB attended.
- FAS escalated the meetings to multiagency Tactical Coordination Group (TCG) and Strategic Coordination Group (SCG)
- County Emergency Centre was stood up, with IDB (covering all Lincolnshire IDBs) attending as part of the TCG / SCG meetings.
- Battle rhythm for TCG/SCG set. These meetings to continue over the event until the response phase is completed and the recovery phase set.
- EA National phone number for reporting floods overwhelmed, and public asked to use 'fix my street'
  - EA asked IDB for assistance as they "can't cope" (Boards under pressure too)







- 20.10.23 Lower Witham 100mm off the recorded highest level.
- 20.10.23 Dorrington Dyke, between Billinghay and Digby, overtopping.
- 21.10.23 Farroway Drain Badger sett letting water through (PS already reduced to 1 fen pump, following heat damage to MCC).
- 21.10.23 Digby PS affected from the additional water from main river. Pumping but under pressure.
- 21.10.23 Timberland PS loss of power supply -Western Power in attendance, but residential properties are priority.
- 22.10.23 Branston Delph levels rising well above the normal limit of operation and triggering operation of penstock diverting flows in to pumped system.

22.10.23 - Carr Dyke high and above threshold for flooding residential properties in Branston Booth - but holding!

22.1.23 - Timberland Delph overtopping into Martin Delphside Drain as designed - but additional pumping costs.













23.10.23 - Branston Fen (where EA letting water into Board Watercourse) Branston Delph is now operating at high level - Board opened Engine Drain no1 to allow water to flow to Nocton Fen PS.

23.10.23 - Branston PS keeps tripping, constant staff monitoring needed as it back feeds the system.

24.10.23 - Digby PS surrounded with water, pumps still running.

24.10.23 - Branston Delph - Board's 6" mobile pump repositioned and EA installing an 8" mobile pump.

24.10.23 - 6" pump going to Heighington to help relieve Sandhill, and EA to provide  $2^{nd}$  6" pump.

24.10.23 - Overtopping at EA Sandhill Beck into Sandhill PS system, with pumping station at risk of going underwater. EA Pump requested.

24.10.23 - Blankney PS motor slip rings failed.

24.10.23 - MS - Requested closure of penstock at Ferry Lane Washingborough as Sandhill in danger of inundation (due to overspill of South Delph into Canwick Fen)

25.10.23 - Heighington PS down - getting boat access to repair??????

25.10.23 - Sandhill PS underwater unsure if pump working [it was and continued to do so]









25.10.23 - 1 flood pump at Dunston?????

26.10.23 - Continued operation of Sandhill PS priority, as it's losing at the moment

Operation of penstocks at Ferry Lane and Sandhill Beck balanced needs to protect Sandhill PS, make best use of Heighington PS and mobile pumps whilst evacuating as much water from Washingborough Fen as possible.

Water levels round Sandhill PS still rising even with 4 pumps running at Heighington PS (have dropped 10mm with 4 pump running)







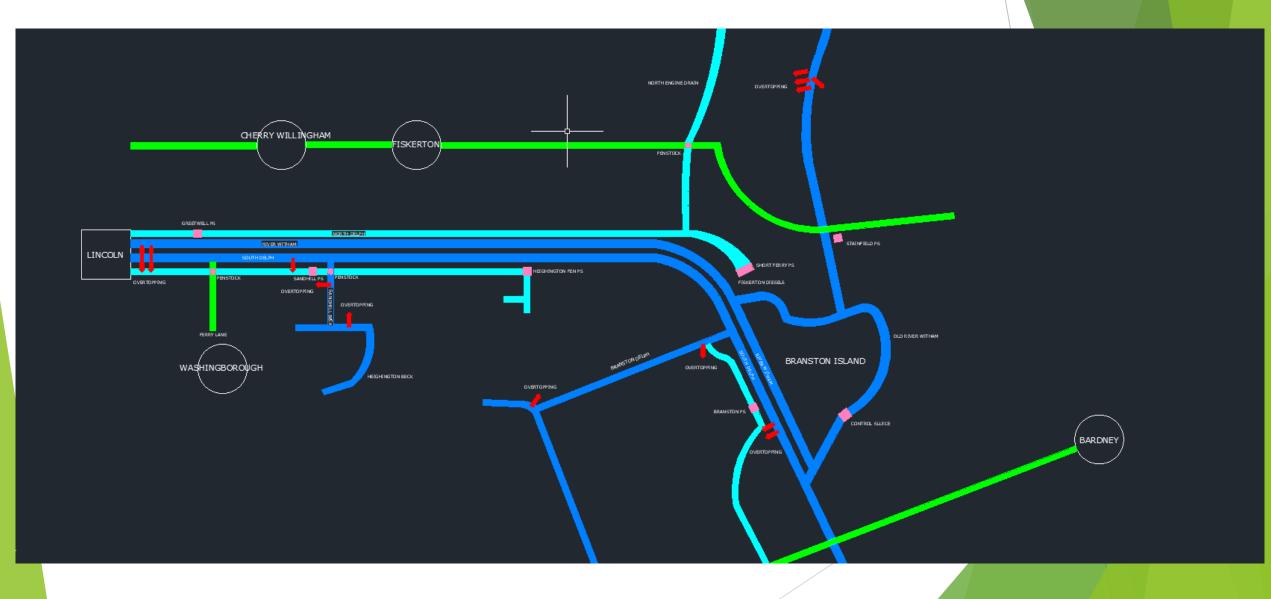
27.10.23 - Flooding at Carr Dyke (Potterhanworth Fen) caused by overtopping/ breach/ seepage of the main river asset into IDB pumped system. (x2 photos of the Carr Dyke - these to be moved to catchment slides)

27.10.23 - Blankney PS down









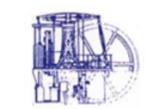


#### Pumped Hours

Below are examples of pumped hours from September - October

	September 2023	October 2023
Sandhill	30	278
Heighington	32	560
Branston	27	451
Blankney	0	340
Billinghay	0	33
Digby	3	537





20.10.23 - Lower Witham 100mm off the recorded highest level.

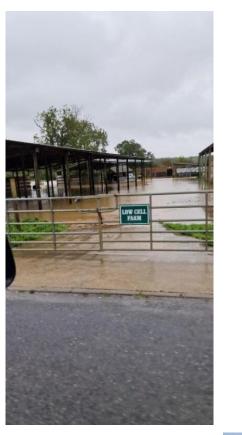
20.10.23 - Minting flooded with water coming from banks - Fire and Rescue called.

20.10.23 - Horncastle Ings - water out of channel.

20.10.23 - Horncastle FAS alleviation scheme available, but not right to the top. Water out of bank and on road at Stainfield and Bardney. By 18:45 the Bain 'is as one' with the Ings - pump no-longer helping situation.

20.10.23 - Thunker Drain overtopped and flooding new properties.

20.10.23 - Horncastle, Digby, Bardney to Wragby closed!











.......................

20.10.23 - Duckpool over topping near Stixwould bridge and filing Turners soke. [*Photos right*]

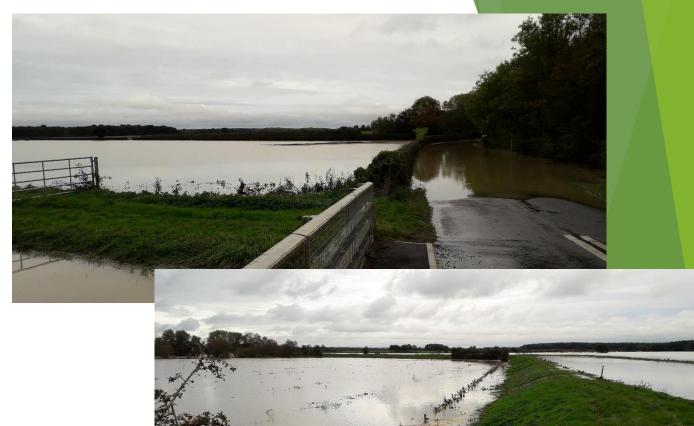
21.10.23 - Stixwould - not able to pump as staff not available (6 required per 24 hours) [*Photo bottom left*]

21.10.23 - Duckpool CW still overtopping - Duckpool and Southery PS working flat out (not much headway)

21.10.23 - Bardney Fen PS - Inundated

21.10.23 - Southery PS - water in building but not at panel/ pump [*Photo bottom right*]

21.10.23 - Bain breach (2<sup>nd</sup> location) W3W tutorial.wiped.anode (approx.) Tumby just above Coningsby.







25.10.23 - Coningsby Ings out of action - no access

25.10.23 - FRS 2 pump and 1 crew at Shortferry

25.10.23 - Southery - badger sett (water clear)

25.10.23 - Fiskerton large slump in EA bank (2 photos).

26.10.23 - Stainfield (interim EA 2 x 6" pumps until the 12 " pump arrives from Somerset)









26.10.23 - Black Sluice loaning 8" pump to support Stixwould

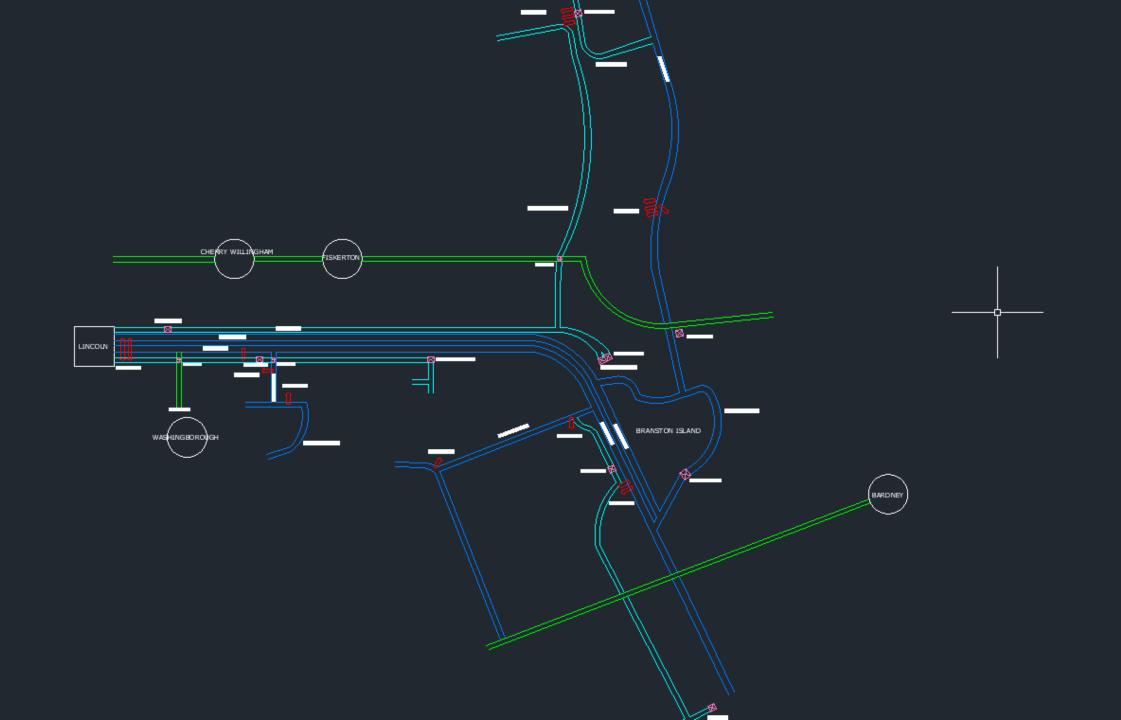
26.10.23 - IDB officers noticed a slip in the lowerside bank of Duckpool. Rough W3W location metals.keybards.verb - added to incident log, notified EA incident centre.

26.10.23 - 2 x 12" pumps being provided to Stainfield

27.10.23 - EA confirmed Horncastle Penstock has been closed manually - full investigation to be conducted, and will continue to be operated manually (Leigh on TV noting the failure of defence??)

27.10.23 - Shortferry water levels down 10mm per hour (from pumping cell) - water will be let into the shortferry system this will likely cause water levels to rise.



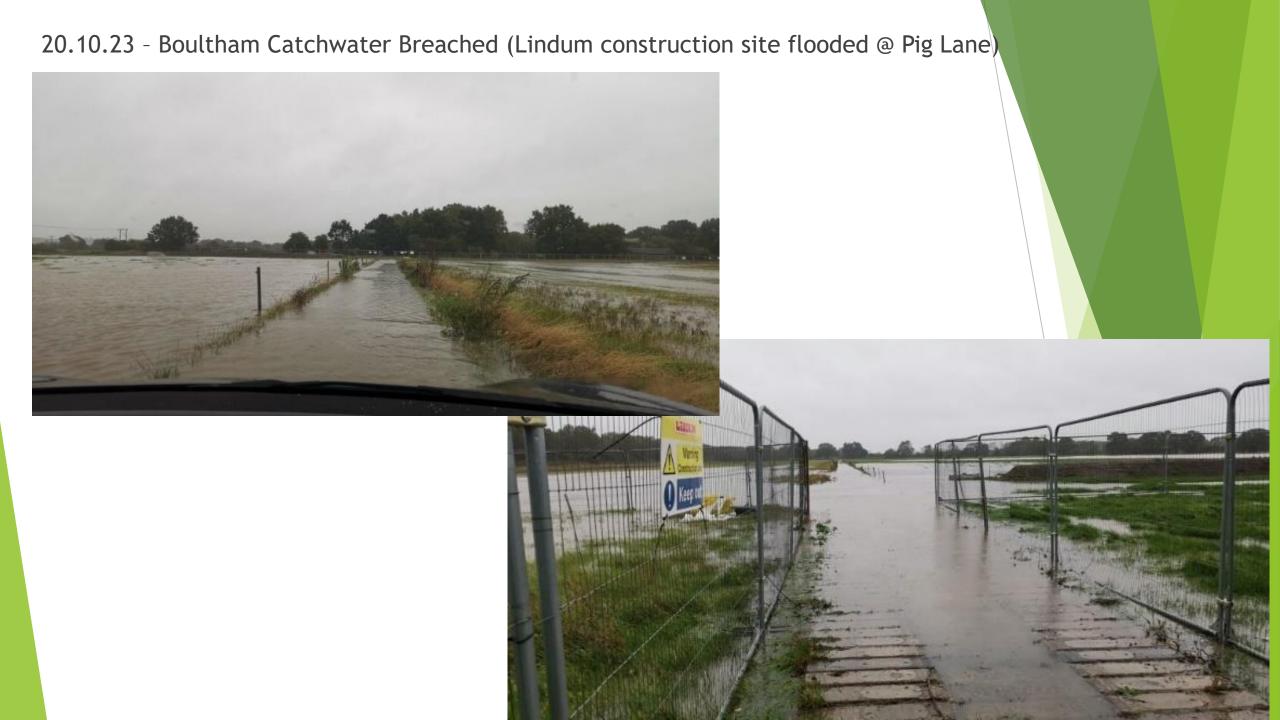


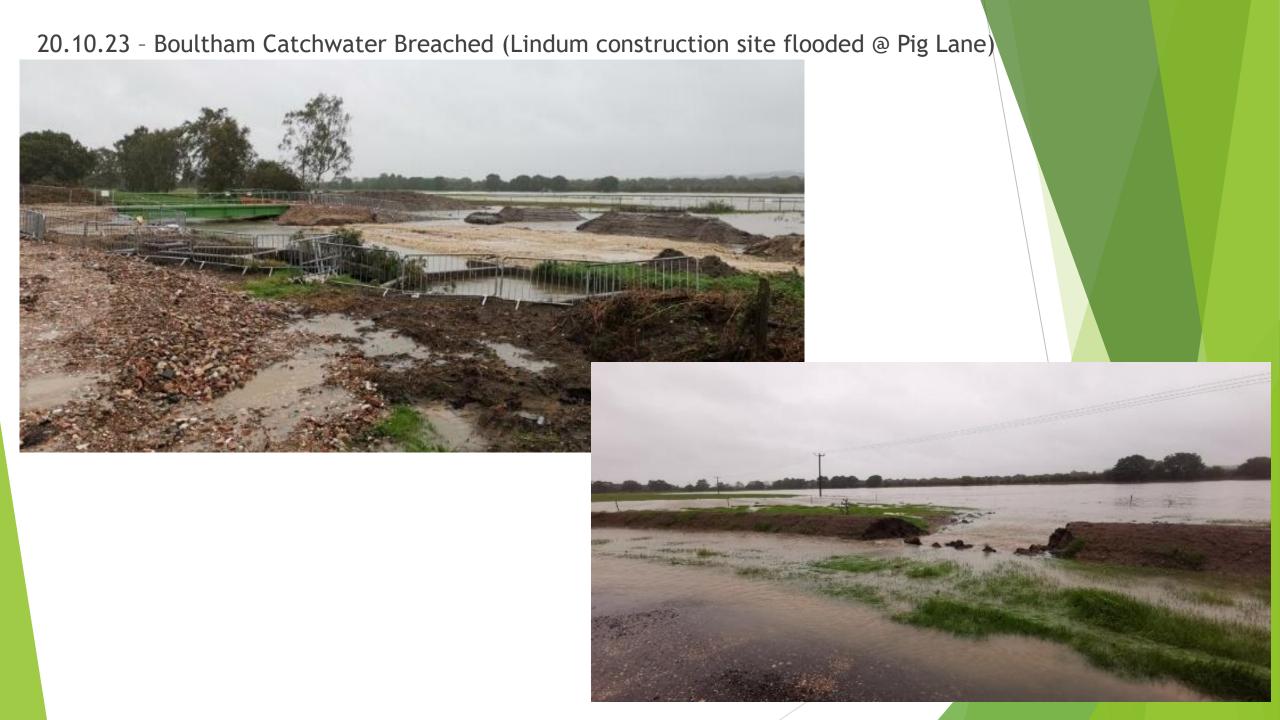
#### Pumped Hours

Below are examples of pumped hours from September - October

	September 2023	October 2023
Bardney Abbey	4	204
Bardney Manor	35	453
Kirkstead	17	446
Shortferry	49	550









#### Upper Witham



- 23.10.23 Oxpasture PS power supply fuse overload tripping
- 23.10.23 Sand Syke PS is still operating but should have been isolated as part of Lincolnshire Washlands.
- 28.10.23 Pump Failure at Boultham PS (Still 1 pump operating and will be running again by 30<sup>th</sup>)



#### **Pumping Station Hours**

Pumping Station	September 2023	October 2023
Boultham	29	260
Pyewipe	10	223
Oxpasture	15	304
Torksey Syke	1	215
Thorpe	8	131