Halton Holegate Parish Council

Report and Investigations into Flooding in Halton Holegate in October 2023





Version: Final Issued: 14/12/2023

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Parish Council Contact Details.

Chairman; David Sisson, <u>dsissonhhpc@gmail.com</u>, 07774 015716

Clerk to Parish Council; Jack Sergent

Email, HHPCClerk@outlook.com

Telephone; 07872 943179

Address; Town Hall, Halton Road, Spilsby, Lincs PE23 5LA.

1.0 Summary

Village is located 1 mile southeast of Spilsby on the edge of the Wolds AONB. The village centre sits in the northern part of the Parish whilst a smaller area of housing and farms are located in the southern half of the Parish. These parts of the Parish are known locally as Halton Fenside and Halton Fen respectively.

The northern part of the Parish is typically at a level of 25m above ordnance datum, whilst Halton Fenside is at around 4m and Halton Fen is around 1, above ordnance datum respectively.

On the evening of al through the 19th and 20th October 2023 Storm Babet crossed the district and some 98 mm of rain fell on an already saturated catchment that had received 59mm of rainfall only 4 days earlier. In total during a nine-day period 157mm of rain fell which is equivalent to almost 3 times the average monthly rainfall total for October. The resultant watercourse flows and overtopping from the River Steeping and East Fen Catchwater together with overtopping of the main outfall dyke from the eastern and southern parts of Spilsby caused serious and widespread flooding which was most severe in the Fenside area of the Parish. The village suffered similar inundation on two occasions in 2007.

In all 11 properties are known to have flooded internally and a further 9 suffered inundation of gardens, outbuildings and garages. All those affected suffered damage in varying degrees and some property owners were evacuated or self-evacuated to alternative accommodation. The farmlands around the village were also badly affected and approximately 280 Acres of land were flooded for a period of 4 or 5 days. The Parish Council have instigated an Action Plan to fully investigate the causes and impacts of the flooding with the sole aim of lobbying the Joint Lincolnshire Flood Risk Management Authorities (LFRMAs) for improvements to flood risk management infrastructure and management thereof that serves and has potential to have detrimental impacts on the Parish.

This report details the investigations of the Flood mechanisms, the impacts on village dwellers properties and businesses and makes recommendations for improvements to Flood Risk Management (FRM) infrastructure and activity in and around the Parish.

2.0 Causes of Flooding and Impacts

Storm Babet crossed Lincolnshire during the 19th and 20th October 2023 and during that period 98mm of rain fell on an already saturated Parish area.

A Table showing Dailly Rainfall data for the village is included in Appendix 1 of this report.

Initially on the morning of the 19th of October some relatively small-scale surface water flooding impacts resulted in the form of road and garden flooding. At this point however no properties suffered flooding and the Main Halton Beck (Main River) that passes through and drains Halton Fenside was coping although only just. This beck discharges to the East Fen Catchwater.

The majority of the flooding was therefore caused by the overtopping of three watercourses.

- 1 A riparian watercourse to the west of the village,
- 2 The River Steeping, an Environment Agency (EA) Main River and
- 3 The East Fen Catchwater , also an EA Main River.

Map 1 below shows the main watercourse networks serving the Parish and surrounding areas. The map also shows which RMA is responsible for management of the individual watercourses. EA Main Rivers are shown in Green, W4IDB watercourses in Blue and those other watercourses under Riparian control in Red.



Map 1 – Main Watercourse Network around the Parish of Halton Holegate.

Two of the EA Main Rivers, the East Fen Catchwater and Halton Beck are managed by the Witham 4th District Internal Drainage Board (W4IDB) to a specification set by the EA. This is carried out under a Public Sector Cooperation Agreement (PSCA) set-up under procedures set out in The Flood & Water Act 2010, Section 13(4).

The Halton Beck (in part an EA Main River and in part a W4IDB Adopted Drain) had been recently cleared of weeds by W4IDB and was a clean watercourse at the start of the event.

The Council is informed that similar work was due to be completed on the East Fen Catchwater but at the start of the event no management (weed clearance) had been undertaken which consequentially had significant weed growth in the channel that impeded free conveyance of waters.

The Section of River Steeping (EA Main River) does not normally have any annual maintenance works carried out upstream of Mill Bridge at Great Steeping.

During the day of 19th October flooding in the Parish increased as by this time the main outfall watercourse that caters for waters draining from Spilsby to the northwest of the village had reached and exceeded its capacity and had overtopped onto adjacent lands. The overtopped waters then proceeded to flow east wards across the fields entering the area of Halton Fenside from the west.

The under capacity of the watercourse was also intensified by the relatively small size of the Road Culvert where it passes under Toynton Lane. During the event significant head loss was observed at the culvert which raised water levels even higher local to the culvert and thus increased the amount of overland water flows towards the Fenside area.

This flood route was the most significant source of flood waters and was responsible in the main for the flooding of properties on the west side of

Fen Road in the village. In all 4 Properties were internally flooded directly from this source a further 6 suffered flooding and losses of gardens and outbuildings including integral garages housing boilers and freezers etc. This impact was a repetition of the flooding that occurred in Fenside on two occasions in 2007. Following that event some minor improvements to local watercourses by W4IDB had been undertaken but sadly the flooding reoccurred during this event. There is now major concerns in the village that flooding could be become more frequent if and when the Major development east of Spilsby goes ahead unless the current and potential future run-off remains unattenuated.

Later in the day of 19th October overtopping of both the east Fen Catchwater (at two locations) and the right bank of the River Seeping near the Spilsby Sewage Treatment Works just to the east of the village occurred. Exact timings are uncertain, but it is understood this continued for some hours (possibly more than 12 hours) into Saturday 20th October.

This over topping water also flowed across fields and entered the southeastern section of Fenside around Pinfold Lane. A further 7 properties suffered internal flooding from these two sources and a further two suffered flooding of outbuildings or integral garages, stables etc.

Halton Fen was inundated for the first time in living memory, and this was as a direct result of overtopping of both the River Steeping and the East Fen Catchwater. The water after escaping the Main Rivers as well as flowing overland towards Fenside also followed internal drainage systems finally finding its way into the area south of Pinfold Lane and into Halton Fen. Flood flows of this nature had not previously been witnessed within the Parish and certainly not on this scale.

As well as the properties flooded (detailed above) a significant area of farmland was flooded to depths of around 0.75m at its worst. This flood was contained from spreading further by Fen Road and Thorpe Bank Drain.

Map 2 below shows the routes overland flows of water took towards the Fenside and Halton Fen area that had escaped or over topped banks of the River Steeping, the East Fen Catchwater, and the Riparian Watercourse to the west of Fenside. It also shows known overtopping locations from EA Main Rivers.



Map 2 – Watercourse Map showing Overtopping locations and Flow Routes for Flood Waters.

Map 3 below shows the resultant Flooded Areas and Appendix 2 photographs of the event.





3.0 Action Plan and Recommendations

During the event and in the period immediately following the event the local area Parish Councillor supported by our County and District

Councillors were able to identify all residents who had suffered flooding, and the associated welfare impacts and who required support to assist their recovery process.

In most cases officers from ELDC visited those residents so identified and assessed what support was required.

The Parish Council (PC) organised and ran a Drop-in session on 9th of November 2023 at which affected residents were asked to come in and share their experiences and advise on what further support needs they had. There was a very positive response from a well-attended session. The PC used the outcomes to verify the information about how the flooding occurred and the impacts it had. The session was also used to collect the thoughts of those affected on what measures could or should be put into action to help reduce the risk of this devastating flooding happening again and if it does how the impacts can be partially mitigated.

This data was then discussed at length by the PC in a follow up Parish Council Meeting and an Action Plan was drawn up. The Action Plan is included at Appendix 3.

In the days immediately following the event the PC acquired a supply of sandbags (courtesy of Cllr. Wendy Bowkett, LCC & ELDC), Wheelie Bins to house both filled and empty bags (Courtesy of Cllr. Terry Taylor ELDC) and a supply of sand paid for by the PC. These were initially filed and deployed to the worst affected properties to help reduce the risk of repeat internal flooding. A further stock of bags has been held in reserve for deployment in the event of a further event.

The Parish Council was impressed and very grateful for the speed and the level of support and empathy shown to our small Parish by our representatives and their teams at ELDC, LCC and our Member of Parliament. This was particularly important to residents whilst they waited for responses from Insurance providers. The PC have also commenced a full review of the Parish Emergency Plan with an Immediate Update of Provisions for Flood Events which will draw heavily on the lessons learnt during the 19th & 20th October and thereafter.

The remaining Key Actions are predominantly focussed on improvements required by all the relevant FRMAs for the management of all their flood risk activity and infrastructure that serves or has potential to impact the parish.

The PC and Parishioners were very grateful for the practical support offered both during and immediately after the event by the W4IDB Operations Team led by Ed Johnson, Chief Engineer.

As previously stated, Halton Beck had been cleaned out by W4IDB in the days leading up to the event and this proved effective to cope with surface water issues right up until the huge flows of Foreign Waters from Spilsby started to enter the Fenside Area of the village.

The W4IDB also swung into action immediately after the event and carried out weed clearance activities on the East Fen Catchwater which has seen general water levels reduced. This in turn allows Halton Beck to drain more efficiently.

The main thrust of the PC's Actions after improving their own response capabilities through the Village Emergency Flood Plan is to engage with the relevant FRMAs to seek improvements to FRM systems and activity with the sole aim of reducing the risks posed by them to the community.

These include:

1 Improvements to the Riparian Controlled Watercourse to the west of the village.

This watercourse as previously stated is the main outlet for the developed areas of Spilsby including the Vale Industrial Estate, the residential developed areas around the Vale Estate and the Lady Jane

Franklin Drive Estate together with adjacent farmlands. It also includes the site of a proposed major development of around 600 properties to the east of the Town. Most of the existing developed areas drain unattenuated into the various feeder watercourse that then join south of Spilsby to form a single flow path in the watercourse afore mentioned that was the initial source of flooding in the Fenside Area.

It is clear to Residents and the PC that this watercourse is incapable of passing these unattenuated flows and needs adoption by and improvement by the Joint FRMAs to make it fit for purpose. This to include upsizing of the Toynton Lane Road Culvert and the construction of a flood protection barrier bank on the east side of the watercourse to prevent water escaping and flowing overland towards the Fenside area. These measures are needed in addition to the construction of significant new attenuation areas, to be built on the outskirts of Spilsby to cater for run-off from all the recent developments over the last 20 Years or so and those proposed and the planned major development to the East of the Town. The PC considers that the failure to build such attenuation areas when the existing developments took place to be a major flaw within the Planning System and of the Joint FRMAs duty to protect third parties from increased flood risk.

This Council calls for full consultation and participation with those who will influence and consent the proposed major development when determining the application.

There is anecdotal evidence that one such small attenuation area exists to serve the Lady Jane Franklin Drive area but when visited by a PC member during the flood was observed to be dry.

2 Bank Raising of Low Spots in the Banks of the East Fen Catchwater and River Steeping.

The importance of these measures cannot be underestimated in their benefits to the village. However, we understand that any actions taken

must also be thought through carefully to ensure that adverse impacts are not to result downstream on those systems.

3 Improvements to Management Activity on both the East Fen Catchwater and River Steeping.

The importance of effective and timely management of weed growth in systems has been demonstrated by the observed lowering of water levels in the East Fen Catchwater by the weed cutting undertaken post event.

The Parish Council considers that similar activity should be undertaken on the River Steeping annually and specific attention should be paid to the encroachment of woody growth on both banks and associated low branches especially that have the potential to restrict and hold up water flows in the river.

The Parish Council also believe that there are potentially large volumes of silt that has accumulated in the East Fen Catchwater which has two detrimental impacts – Firstly by resulting in higher water levels yearround and also as the high silt levels encourages prolific weed growth that impedes conveyance of flows. Removal of weeds mitigates these adverse impacts thus speeding up recovery. A second request after removal of all silt deposits and weed growth is that water levels should be lowered in advance of a predicted storm event to allow for greater capacity for flood water storage during the initial phases of an event.

The Parish Council now calls for urgent discussions with all the FRMAs to discuss and take these very urgent matters forwards.

APPENDIX 1 – Halton Holegate Rainfall Figures 2023.

| Days on which Rain fell | DZO05PLCZ5587-C 16 2 2 29 5 2 16 6 7 1 1 20 3 1 2 1 13 3 3 2 18 2 18 2 19 27 7 00:33 STORM BABET 50 1 11th to 28th oct 98.0 157.0 18th to 28th oct | | | | | |
|-------------------------|---|-------|-------|----------------|-------------------|--|
| December | 8.0 8.0 9.11 9.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1 | 81.5 | 980.5 | 158.02 | 161.39 |] |
| November | 100 100 100 100 100 100 100 100 | 90.06 | 0.668 | 144.88 | 151.77 | eriod Total |
| October | 140 140 00 00 00 00 00 130 00 00 00 00 00 00 00 00 00 00 00 00 0 | 213.0 | 809.0 | 130.38 | 333.86 | o Readings P |
| September | 000 000 000 000 000 000 000 000 000 00 | 114.0 | 596.0 | 96.05 | 211.50 | |
| August | 10000000000000000000000000000000000000 | 56.0 | 482.0 | 77.68 | 97.22 | Jivilent) |
| July | 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 122.5 | 426.0 | 68.65 | 218.36 | er 20mm now (Rain equ |
| June | 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 38.5 | 303.5 | 48.91 | 72.50 | |
| May | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 32.0 | 265.0 | 42.71 | 65.04 | 27 |
| April | 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 64.5 | 233.0 | 37.55 | 158.48 | 10 19.9mr 3/12/2023 |
| March | 000 000 000 000 000 000 000 000 | 100.0 | 168.5 | 27.16 | 216.92 | 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| February | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 16.5 | 68.5 | 11.04 | 44.84 | 181 |
| January | 000 000 000 000 000 000 000 000 | 52.0 | 52.0 | 8.38 | 97.56 | to 9.9 mm Rainfell |
| 123 | - 0 0 4 9 0 L 0 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | otal | Total | Annual date | Aonthly o date | 5 on which i |

This record is from a private rainfall gauge owned by a member of the Parish Council.

APPENDIX 2 – Photographs of Flooding in Halton Holegate Parish







Fen Road Halton Fenside

Fen Road Halton Fenside

Gardens Fen Road Halton Fenside







Property and Land Flooding in Pinfold Lane, Halton Fenside



Overtopping of right bank of East Fen Catchwater at Halton Fen Bridge







Toynton Lane acting as a flood route Saturday 20th October.





Flood Attenuation Area – Lady Franklin Drive Friday 19th October 2023 Showing Dry storage Area and unattenuated discharge.



General View of Flooding of Land and Isolated Properties in Halton Fen

| :1 of 2 | HALTON HOLEGATE PARISH COUNCIL | Revision Ref; | Date of Revision | Revision by; | DS |
|----------------|--|---------------|------------------|---------------|----------------|
| | · STORM BABET FLOODING - ACTION PLAN | HHPC_01 | 14/12/2023 | | |
| | | panoiddy | | | |
| Action Ref. | Details | Due Date: | Priority | Action Owner | Completion Dat |
| | | | | - a. | |
| 23_01 | Flood Impact & Causes Report | | | | |
| 10_01_01 | Conduct Survey of Affected Properties and Land @ Public Drop-In Session 9/11/2023. | 09/11/2023 | Т | РС | 09/11/2023 |
| 3_01_02 | Collate Flooding Records and Share with ELDC/LCC Councillor's, EA and Witharm 4th IDB | 16/11/2023 | I | DS/CE | 12/11/2023 |
| 3_01_03 | Produce Flood Record Report for Sign Off by Full Council on 14/12/2023 | 16/12/2023 | н | DS/CE/JS | 25/11/2023 |
| 23_02 | Review and Update HHPC Emergency Plan | | | | |
| 3_02_01 | Circulate Existing Emergency Plan and Invite Comment from Parish Councillor's | 16/11/2023 | Ţ | TR | 13/11/2023 |
| 3_02_02 | Update Contact Details in Existing Plan - Agree what appendices are required for specific Emergencies. | 16/11/2023 | Σ | TR | |
| 3_02_03 | Highest Priority - Draft and Consult on Appendix 1 - Flood Risk | 14/12/2023 | н | CE/DS/TR + PC | |
| 23_03 | Councillor's & Community Communications | | | | |
| 3_03_01 | Set-up Councillor's (inc District & County Councillor's) WhatsApp Group | 12/11/2023 | I | CE | 10/11/2023 |
| 3_03_02 | Consider setting Up a Council Facebook Page | 11/01/2024 | Σ | PC | |
| 3_03_03 | Publish Notices / Posters with Useful Flood Advice and Support for Villagers on Notice Boards & Website | 16/11/2023 | I | DS/CE | 13/11/2023 |
| 3_03_04 | Prepare and Circulate Quarterly Parish Newsletter starting March 2024. First Edition to incude advice for Parishoners on their Riparian Responsibilites. | 11/01/2024 | Σ | PC | |

APPENDIX 3 – Halton Holegate Parish Council – ACTION PLAN Page 1

| Ige 2 of 2 | HALTON HOLEGATE PARISH COUNCIL | Revision Ref; | Date of Revision | Revision by; | DS |
|------------|---|---------------|------------------|---------------|----------------|
| | STORM BABET FLOODING - ACTION PLAN | HHPC_01 | 14/12/2023 | | |
| | | Approved | | | |
| Action | Details | Due Date: | Driority | Action Output | - Constantiant |
| Ref. | | | LIIOIILA | ALIIUI UWIEL | Completion Dat |
| | | | | | |
| 23_04 | Financial Implications of Flood Event (for Parish Council) | | | | |
| | | | | | |
| _04_01 | Establish a dedicated section for Flood related costs in HHPC Accounts | 16/11/2023 | I | St / SQ | 22/11/2023 |
| 04_02 | Set-Up Business Account for PC at Buildbase Spilsby | CC0C/11/91 | | <u>.</u> | |
| | | C202/111/01 | E | ç | |
| | | | | | |
| 3_05 | Establish required Watercourse Maintenance and Improvement Works by FRMAS | | | | |
| 05_01 | Agree and Publish in Flood Report all actions required of the Flood Risk Management Community to improve community safety | 14/12/2023 | . т | PC | 15/12/2023 |
| 05_02 | Set-Up meetings to lobby and seek support from FRM Authorities (FRMAs) | 11/01/2024 | · I | DS | |
| 3_06 | Future Meeting Dates | | | | |
| _06_01 | Set-Up and Publicise Extraordinary Parish Council meeting for 14/12/2023 to receive and adopt Action Plan and Flood Report. | 07/12/2023 | I | St / SQ | 07/12/2023 |
| | | | | | |
| Key; | PC - Parish Council, DS - Clir. David Sisson, CAH - Clir. Christina Holmes, CE - Clir. Chris Edwards, TR - Clir. Tracey Robson, SA - Clir. Steve Andrew, JS - Jack Sargent (Clerk), FRMA - Flood Risk Management | | | | |

APPENDIX 3 – Halton Holegate Parish Council – ACTION PLAN Page 2