



Potter Heigham Parish Council
5 Sceptre Close
Hellesdon
Norwich
NR6 5HE

Re: Flooding Issues, Potter Heigham Parish Council

5th March 2024

Councillors

Sheridan Turner
Chair

Donald Pickering
Vice Chair

Helen Bartlett

David Bland

Stan Chapman

Robin Graves-

Morris

Mary Haslam

Keith Lowes

Harry May

Bev Standen

James Stone

Laura Bateman

Clerk

Dear Duncan Baker,

Following your public meeting on 2nd February 2024, which was attended by representatives of Potter Heigham Parish Council and local residents, the parish council have agreed to formalise concerns regarding the severe flooding issues recently experienced in the village. The council appreciate the time and effort made in holding the meeting, however, there was a general consensus that there was a lack of direction around future planning and prevention. This letter will firstly outline the concerns of the council, followed by suggested solutions that should be carefully considered. Information contained within this letter has been formulated from input from the council in conjunction with listening to local resident's concerns.

Concerns

1. The severity of the flooding is increasing and the impact on residents, businesses and livestock is becoming more exacerbated. Residents who have lived in the village for 65 years have never seen flooding as severe as experienced recently.
2. Flooding on roads has increased as ditches and dykes are full and the water is unable to get away because the highways ditches are also full.
3. The Broads system was designed to take water away and can no longer hold the volume of water it used to. It has been silted up and physically "filled in" by constructed islands and extension of reed beds. The river system also cannot cope as it has also been allowed to silt up. The Broads are an engineered structure so will not naturally maintain themselves and will require intervention. It is felt the lack of river dredging and removal of accumulated mud, which used to be done annually, is a major contributing factor to high river levels and overtopping. The lack of river dredging in the Yarmouth area has resulted in the river becoming blocked and narrowed, therefore less water is able to run out at low tide.
4. Future potential damage to residential properties. The River Thurne overtopped the flood wall in many places along the riverbank, as purposefully designed "low" spots were overwhelmed. The result was unprecedented, the low-lying area from Decoy Road round to Potter Bridge was flooded to a considerable depth. Houses came within an inch of flooding. The pathways along the river side are still flooded making access very difficult. Damage to properties situated on the banks of the River Thurne. These properties have a flood defence embankment located immediately behind them. The embankment is mainly an "L" shaped barrier of concrete. This defence increases the volume of river water that can be held back from the flood plains until levels are significantly elevated. The

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top of the normal range of The River Thurne level at Repps is 0.78m¹. Following the recent flooding The Environment Agency (EA) announced on the 8th January 2024 they would be carrying out work on the River Thurne to reinstate low points in the flood wall and restore its minimum design level². Work was scheduled to begin late January-February 2024. At the public meeting, David Kemp (EA representative) confirmed the EA would not go above 0.8m when they raise or reinstate the barriers³. It is crucial that a post-reinstatement survey is conducted to ensure that the repaired barrier heights do not exceed 0.8m. For example, by adding a timber of 47mm thickness (material and thickness proposed by EA⁴) to a current barrier height of 0.79m, would lead to additional flooding of riverside properties.

In a letter from the EA⁵ received by residents, the EA's opinion is that significantly raising defences above historic levels will not increase the flooding in front of the defences where the properties sit. The EA claim flooding of these properties will be prevented by established low sections of embankments that are specifically designed to overtop first, allowing river water onto the marshes to take pressure off the remaining defences. At a barrier height of 0.8m frequent overtopping occurred during the recent flooding indicating that the established low sections were overwhelmed by the river levels. Had the defences been higher the water would have continued to rise, causing more flooding to riverside properties, as river water would be prevented from escaping to the flood plain.

An additional concern is that the National Farmers Union (NFU) are proposing that the defences are raised by 0.5m. This proposal is designed to further protect the flood plain and may have the result of flooding all properties on the River Thurne.

5. Lack of confidence in the authorities responsible for flood management. It appears poorly defined and recognised responsibilities has led to inefficiencies. The functions of the Broads Authority as laid out in the Norfolk and Suffolk Broads Act 1988 section 2 (4) (c) state: "In discharging its functions, the Authority shall have regard to the needs of agriculture and forestry and the economic and social interests of those who live or work in the Broads." A number of "Thurne Bungalows" and businesses have been affected during the recent flooding and it appears that the Broads Authority is ignoring the above responsibility.

Possible solutions for consideration

1. Regular maintenance of the flood plain ditches which often overflow.
2. Operation of the pumps draining the flood plain to be synchronised with the river levels. For example, when the flood defences are overwhelmed by abnormal river levels, do not have the pumps running. This causes unnecessary wear on the pumps, wastes electricity and results in further erosion of the embankments.
3. Water could be pumped on a large scale into the sea, via the Hundred Stream system, to alleviate the water levels. A pipe and outflow to sea with flood gates is shown on old Ordnance Survey maps of the mid 1800's in the area Horsey to Somerton and the pipe was still visible in the early 1900's. If this could be built 200 years ago then it should be viable now by laying a relatively short pipe from Somerton Dyke 2.9K or Horsey Windpump 2.4K to sea. As an example a twin pipe line was laid from Bacton to Great Yarmouth power station to carry gas and condensates. The pipe was laid across fields, under roads, rivers and

marshland and unless familiar with the project you would not know the piping was there.

4. In most cases the embankments are not made of a suitable substrate and is quickly eroded. A more suitable substrate should be used.
5. The implementation of an effective and reliable dredging programme, to include the entire water network. The modelling used for a dredging programme should be mindful of where measurements for the width of waterways are taken as this is impacted by tides and water locking. These measurements will drive planning and monitoring so need to be reliable.
6. A "Thames barrier" style construction should be erected on the River Bure at Great Yarmouth to regulate the flow of sea water into the river system. Such a structure has been included in a Broadland Futures Initiative flooding infographic and was considered during the planning of the Herring Bridge at Gt Yarmouth, but was not included in the final plan.
7. Build a massive reservoir to hold potential flood water and pump it back into the river system when levels allowed (however wetland and farmland would be lost). Reservoir water could be harvested for drinking water or for farmers to utilise in periods of drought. Restrictions on farmers abstraction licences has prompted the need for alternative ways for farmers to source water, new reservoirs offer a solution.

Whilst The Broadland Future Initiative (BFI) has been created to provide a partnership to manage flood risk, there is no clear plan of what action will be taken, when and with what funding. The partnership was established in 2019, yet no tangible measures have been implemented to reduce flood risk in the future.

There are many local residents who have lived on or by the river their entire lives and who could provide valuable insights. To our knowledge this vast body of knowledge has not been tapped.

The council ask each of these concerns and ideas for possible solutions are given due consideration, particularly by the BFI, and would appreciate a full response regarding the issues raised. Thank you for your time and consideration of this matter.

Yours faithfully,

Laura Bateman

Laura Bateman
Parish Clerk and RFO, Potter Heigham Parish Council

¹ Gov. UK. "Find river, sea, ground water and rainfall levels"

² Email (08/01/24) from Tom Garrod (EA) to Daniel Trett (Thurne Bungalows Management Company Ltd, managing agent and company secretary)

³ Flooding Public Meeting Minutes. Meeting organised by Duncan Baker MP held in Hickling 02/02/24

⁴ Email 26/01/24 from EA to River Thurne Tennent's Association chair (regarding further details on embankment reinstatement work).

⁵ Letter from Aaron Dixey EA (04/12/23) to "Residents of the Broads" (covers Flooding in the Broads)