Broughton Parish Council

20 November 2024

Huntingdon District Council
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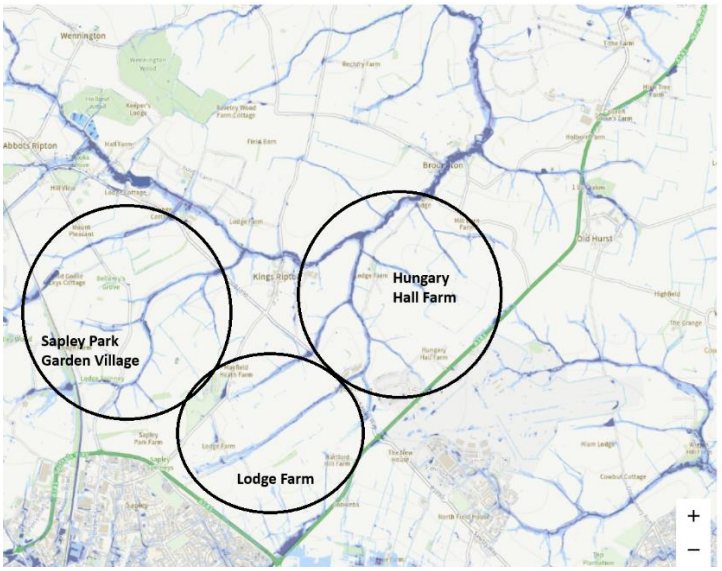
Subject: Local Plan Consultation Response: CfS 256, Lodge Farm, North of A141, Wyton on the Hill

Dear Sirs

Executive Summary

Broughton Parish Council has considered the proposed development on the Lodge Farm site which lies to the north of the A141. This is a large-scale development, assessed by Huntingdonshire District Council at 4,989 homes.In this document we set out issues relevant to the Land Area Assessment of this site and comment on the Site Appraisal ratings made for the site as well as the Further Issues and Options 2024 with respect to Tackling Flooding and Water.

Our assessment is that development on this site would be harmful in a number of respects, including flood risk. To provide a joined-up response with regards flood risk to Broughton, we have included context and comment below related to proposed developments at Lodge Farm (CfS 256), Sapley Park Garden Village (CfS 197), Hungary Hall Farm (CfS 47) and Land off Causeway Road (CfS 153).



This extract from the Environment Agency Surface Water Flood Map shows how runoff from the three major development sites in the Bury Brook catchment immediately upstream of Broughton would have a significant cumulative impact on flood risk to Broughton

Our recommendation is that this site be withdrawn from consideration.

This letter includes:

1. Introduction - a brief description of Broughton
2. Comments on the proposed development and associated impacts
3. Comments on the Site Appraisal
4. Our conclusions and recommendations

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Introduction

Broughton is a small village just over 1km west of the A141 and around 2km south-west of Warboys. The village dates back to Anglo-Saxon times and much of the village is within a Conservation Area. The Conservation area includes 27 listed buildings protected for their special architectural and/or historic interest. The proposed development site is entirely within the Conservation Area.

Broughton is situated in a landscape of much environmental significance, with the surrounding countryside providing valuable habitats for wildlife. The village is surrounded by farmland and meadows. When not in flood, the Bury Brook adds to the village's charm and plays an important role in supporting biodiversity in the area including hedgerows and grasslands rich in wildlife.

Properties and roads – particularly Causeway Road - in Broughton have a history of flooding from the Bury Brook and surface runoff. This is a continuing problem, which will be exacerbated by climate change and development. The Environment Agency and Cambridge County Council, as Lead Local Flood Authority, have supported Broughton's Flood Action Group since the latest severe flooding in December 2020.

The village is served by three minor roads, two of which connect to the A141. The roads meet at a T-junction in the centre of the village which has restricted visibility. The roads carry both vehicular and pedestrian traffic since much of the village is without pavements. The roads are narrow and subject to rat-run traffic.

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The Proposed Development and its Impacts

Flooding

Introduction

Properties and roads in Broughton have a history of flooding which is currently underestimated by the available hazard mapping, and which will increase with climate change.

The Environment Agency and Cambridge County Council as Lead Local Flood Authority have supported Broughton Flood Action Group[1] since the flooding in December 2020[2] because they recognise the scale of the current risk and the difficulties of managing future risk. Therefore, any increased pressure on the rapidly responding Bury Brook catchment will exacerbate the impacts of climate and further increase flooding in Broughton. This includes the substantial proposed developments at Hungary Hall Farm (CfS 47), Lodge Farm (CfS 256) and Sapley Park Garden Village (CfS 197), which lie immediately upstream of Broughton in the Bury Brook catchment. The urbanisation of any one or more of these currently greenfield areas will concentrate runoff into the river which, due to the shallow gradient, drains slowly and via pumps to Europe's largest pump station at St Germans (Kings Lynn).

Causeway Road in Broughton already floods regularly to depths that leave cars stranded and, with high velocities, pose a risk to life. See the following selection of photos from past flood events. Cambridge County Council have recently installed a flood gauge on the footbridge adjacent to Causeway Road as this is one of the first sites in the village to flood.

The proposed Lodge Farm development, upstream of Broughton, as well as major developments at Hungary Hall (CfS 47) and Sapley Park Garden Village (CfS 197) would significantly increase the existing risk and directly oppose the Risk Management Authorities' ongoing attempts to reduce flood risk in the village, as well as downstream in Wistow and Ramsey. To provide a joined-up response with regards flood risk to Broughton, we have included context and comment below related to these upstream connected developments. The following sections demonstrate why this site should be withdrawn from further consideration for development.





[1] https://www.cambridgeshire.gov.uk/business/planning-and-development/flood-and-water/community-flood-action-programme/community-flood-groups

[2] https://www.cambridgeshire.gov.uk/asset-library/Broughton-December-2020-Flood-Investigation.pdf



Figure 1: Photos of Causeway Road during past flood events. Access to *Land off Causeway Road (CfS 153)* is to the right of the final photograph at one of the deepest points of flooding

Broughton is already at high risk of flooding

Cambridge County Council's Section 19 report of the December 2020 floods, when 16 properties were flooded internally as well as external flooding of gardens, outbuildings, and roads, states that *"Areas of Broughton have flooded multiple times in recent years from both Bury Brook and surface water".* Broughton Flood Action group reports the low-lying Causeway and Bridge Roads to the Police a number of times each year since they flood to depths which leave cars stranded and pose a danger to life in deep and fast flowing water (see photos).

The EA and CCC provide ongoing support to the village via the Broughton Flood Action Group who have invested in pumps, wet vacuum cleaners, personal protective equipment and watercourse maintenance equipment. The community flood action plan has been approved by the EA. CCC is currently undertaking a project for 16 key locations across Cambridgeshire, including Broughton, to determine the feasibility of flood mitigation and ultimately to develop a programme of works. These ongoing endeavours would be nullified by increased risk from the proposed upstream development, highlighting a lack of joined up thinking between HDC and these Risk Management Authorities.

If further evidence of the trauma that being flooded causes, the following is a reflection of one resident of Broughton following December 2020:

"The flooding of one's home will have significant psychological effect by disrupting physical security and emotional well-being. The effect will be both immediate and long-lasting.

It is difficult to understand the shock and disbelief unless one's home has been flooded. The unexpected sight of seeing one's home being destroyed can overwhelm the ability to process the situation, leaving one feeling confused and emotionally numb. The loss of personal belongings, displacement and uncertainty about recovery will lead to anxiety and ongoing feelings of unease.

The loss of possessions and sentimental items can cause grief, because a home is a symbol of stability and identity where individuals have made emotional connections. Experiencing a flood can cause flashbacks and heightened sensitivity to every new rainfall event. The physical disarray of a flooded home can cause a feeling of isolation and a loss of control.

The recovery period can be long and difficult with a further emotional strain which is not always recognised by those who have not been flooded."

HDC Further Issues and Option 2024: Tackling Flooding and Water: The following is highlighted in the What you Told Us section but does not appear to have been taken into account in the current selection of sites in and upstream of Broughton:

- Avoiding development in high-risk flood areas, prioritising brownfield development
- Avoiding sites that are reliant on flood defences or ensuring that they are sufficiently resilient to remain safe
- Considering catchment based, up and down-stream impacts and cumulative impacts of development for flooding and water issues

The history of flooding in Broughton, partly evidenced by the ongoing support of Risk Management Authorities for our community through the Broughton Flood Action Group, demonstrates that development should be avoided both within Broughton (Land off Causeway Road (CfS 153)) and upstream (Hungary Hall Farm (CfS 47), Lodge Farm (CfS 256) and Sapley Park Garden Village (CfS 197)).

The available modelling of the Bury Brook underestimates our current and future flood risk

The Environment Agency (EA) flood modelling of the Bury Brook, which is used on https://flood-map-for-planning.service.gov.uk/ and in the *Huntingdonshire Integrated Water Management Strategy: Level 1 Strategic Flood Risk Assessment* (SFRA) very likely underestimates the risk along the river, including to Broughton. Broughton Flood Action Group have been assisting the EA to undertake channel survey in 2024. The EA provided this assessment of the 2016 model (used, for example, to delineate the functional floodplain in Appendix D of the SFRA):

The current model is almost 10 years old now and it was based on a survey from the early 1990's which is outdated and not reflective of the catchment as it is today. There is also a lack of gauge data within the catchment, leading to a lot of uncertainty within the hydrology for the modelling. We have not been able to do anything regarding the gauge data but at least we do have the new survey to remove some of the uncertainty. The model does not fully reflect the flood history with a number of properties that we know to have flooded not being shown to be at risk…. Once we have an improved baseline model, we can look at whether there are any viable options which could potentially help reduce the flood risk to the village.

Since the 1990s, the EA have ceased to dredge the channel so that it conveys less water which has increased flood levels. Further, climate change projections have increased since 2016 so that the model likely underestimates the frequency and severity of flooding. The new EA model is due in Autumn 2025 and, until this new model can be used, any assessment is likely to underestimate risk. Nonetheless, even based on the existing data, the SFRA Appendix C Development Site Assessment Spreadsheet recommends withdrawal of

all four sites in and upstream of Broughton from the Local Plan. Reassessment using updated model data will further confirm these recommendations which HDC is urged to follow.

HDC Further Issues and Option 2024: Tackling Flooding and Water, and the Huntingdonshire Integrated Water Management Strategy: Level 1 Strategic Flood Risk Assessment: All consideration of flood risk in the Local Plan, including the SFRA Appendix C Development Site Assessment Spreadsheet and the Appendix D Delineation of the Functional Floodplain is based on outdated modelling and likely to underestimate existing and future flood risk from the Bury Brook, including to Broughton. Once the new EA model is available from Autumn 2025, the flood risk as currently stated is likely to increase. This will further strengthen the existing assessment made in Appendix C of the sites within the Bury Brook catchment which recommended:

- Land off Causeway Road (CfS 153): Withdraw from allocation
- Hungary Hall Farm (CfS 47): Withdrawal as site is within Flood Zone 3b
- Lodge Farm (CfS 256): Withdrawal as site is within Flood Zone 3b
- Sapley Park Garden Village (CfS 197): Withdrawal as site is within Flood Zone 3b

We strongly recommend that HDC follows the advice of the SFRA and removes this site from further consideration in the Local Plan, given that updated modelling is most likely to strengthen these existing recommendations.

Climate change is already increasing flood risk

As quoted in the Huntingdonshire Integrated Water Management Study SFRA, Government allowances for climate change uplifts on peak river flows in this area suggest that by the 2080s, peak flows will have increased by up to 39% compared to the 1981-2000 baseline. Similarly, peak rainfall events will have increased by up to 40% by the 2070s. The Bury Brook has a shallow gradient to the sea at Kings Lynn, with Broughton lying only about 15m above sea level; the same fall as across the proposed Hungary Hall Farm site. The Middle Level Commission (MLC) operate Europe's largest pump station at St Germans, with a major constraint being conveying flood flows to the station through the network of narrow rivers and pumps. Sea level is projected to rise by over 1m by 2100, further increasing the burden (at huge cost) of pumping to keep heavily managed MLC area, including the Bury Brook catchment, at its current level of flood risk. Any additional pressure on drainage through the MLC area, including through increased development in the Bury Brook catchment, will increase the risk of channels and pumps being overwhelmed or failing and is ultimately unsustainable.

As stated in Section 3.3 of the Huntingdonshire Integrated Water Management Study SFRA:

Local plans should [apply the NPPF] by safeguarding land from development that is required, or likely to be required, for current or future flood management; and to seek opportunities for the relocation of development, including housing, to more sustainable locations from areas where climate change is expected to increase flood risk.

Modelling of climate change on Bury Brook flood risk has not been undertaken to inform the Local Plan and it has already been shown that the existing modelling, which is used as a proxy for climate change in Section 4.7.2 of the SFRA, underestimates risk. Any further assessment of climate impacts on flood risk at the sites in and upstream of Broughton should use the new EA model due Autumn 2025 and should consider 'without defences' modelling which should include failure of pumps through the MLC area and the subsequent impeded drainage of the rivers.

HDC Further Issues and Option 2024: Tackling Flooding and Water states that HDC will use the updated Level 1 SFRA to help decide where new developments should be and that the impact of climate change is an important consideration, with numerous reports that the risk to life from flooding could increase significantly. We agree with these statements and therefore request that the following proposed sites are withdrawn from further consideration:

- Land off Causeway Road, Broughton (CfS 153): since access is from the regularly flooded Causeway Road where there is already a risk to life from deep and fast flowing water
- Hungary Hall (CfS 47), Lodge Farm (CfS 256) and Sapley Park Garden Village (CfS 197): since any one or more of these developments will increase urbanised runoff to the Bury Brook catchment upstream of Broughton. This will further exacerbate the increased risk of flooding from climate change that will be hugely challenging for other authorities (including the Environment Agency, Cambridge County Council and the Middle Level Commission) to mitigate.

The cumulative impact of up to three major developments would be significant

The Local Plan proposes 3 major developments within the Bury Brook catchment which would convert up to nearly 500 ha of greenfield land to over 18,000 homes plus associated infrastructure. *The Huntingdonshire Integrated Water Management Study Appendix G Catchment-level assessment of Cumulative Impacts of Development on Flood Risk* assesses the development in the Bury Brook as having a Medium cumulative impact on flood risk. However, the following should be considered:

- Historic flood risk: The EA Recorded Flood Outline is known to under-report incidents of flooding and the zero postcode points for the Bury Brook in the historic flood outlines is clearly in error given the evidence of the CCC Section 19 Flood Investigation into the December 2020 flooding in Broughton, quoted in the main SFRA document in Sections 4.8.1 and 4.8.2.
- Sensitivity to increases in flood flows: As already stated, existing modelling underestimates flood risk from the Bury Brook and climate change should consider the future burden and potential failure of this heavily pumped catchment.
- Growth score: Whilst this is not defined in Appendix G, it is noted that the only two catchments given a HIGH score (Alconbury and Brampton Brooks, and the Bury Brook) are two which have experienced the most significant flooding. Out of all catchments, the Bury Brook has the second highest % area of growth (Alconbury has the highest). It is deeply concerning that HDC consider these two already flood-prone catchments suitable to propose the Highest level of development.

We would contend that this cumulative impact assessment is flawed and the Bury Brook should be re-classified as High overall RAG score with a rank far higher than its current position of 9th.

Huntingdonshire Integrated Water Management Study Appendix G Catchment-level assessment of Cumulative Impacts of Development on Flood Risk: Given the history of flooding, we request that the overall RAG score of 'MEDIUM' cumulative impacts of development on Broughton is revised upwards to 'HIGH', with its rank similarly revised upwards.

Since the Bury Brook has the second highest % area of growth of all sites assessed (8.67%), the MEDIUM rating appears to be because zero postcode points are in the historic flood outlines. As reported in the main SFRA Level 1 document in Sections 4.8.1 (fluvial) and 4.8.2 (surface water), Broughton has a significant history of flooding.

Further, it is deeply concerning that the Alconbury and Bury Brook catchments – arguably two of the most at risk catchments north of Huntingdon - have been selected for the highest scale of development, receiving a HIGH growth RAG scores in Table 2.4 of Appendix G.

Comments on the Site Appraisal

We have considered the ratings given against each of the criteria in the Site Appraisal. For some of the criteria we believe that, based on local knowledge, the ratings given may not be appropriate:

SA2: *(Concentrate new development in locations that maximise opportunities to adapt and be more resilient to the unavoidable impacts of the climate emergency?)*

Although being in a location where the development itself will not be at risk of fluvial flooding, as has been shown above, the development will add considerably to the risk of flooding downstream.

We recommend that the '++' rating given to this parameter be revised to '-' or '- -' to reflect the consequences of development on this site.

SA3: *(Minimise the risk of flooding from all sources?)*

It is clear that the Sustainability Appraisal has taken a very narrow view of flooding and the commentary on objective SA3 for each site refers only to proportions of the site within different flood zones whilst ignoring flooding pertaining to site access or to existing development downstream. Commentary on SA3 for Hungary Hall Farm (CfS 47), Lodge Farm (CfS 256) and Sapley Park Garden Village (CfS 197) should consider downstream impacts of such huge development on flood risk. Recommended score '–' instead of '+'

Conclusions and Recommendations

In summary, the above has demonstrated that:

- Development of the Lodge Farm site would have severe consequences for flooding downstream, including in Broughton, Wistow and Bury:
  - The cumulative impact of up to three major developments would be significant and this has been severely underestimated in the assessment provided to HDC and will further exacerbate the impacts of climate
  - Climate change is already increasing flood risk and will continue to do so through sharp increases in rainfall runoff and sea level rise which puts increasing pressure on the Bury Brook catchment which can only be effectively drained by pumps
  - The available modelling of the Bury Brook underestimates our current and future flood risk, as evidenced by the views of the Environment Agency who are updating the outdated model

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- Broughton is already at high risk of flooding, as evidenced by past documented flooding of properties and roads and through ongoing support and efforts of the Risk Management Authorities to reduce flood risk to the village

We strongly recommend that Lodge Farm (CfS 256) is withdrawn from consideration

Yours sincerely,



Michael O'Donovan
Chair of Broughton Parish Council

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Copies to: Broughton Parish Council