

# Babergh and Mid Suffolk Joint Local Plan

## Statement of Common Ground

Between

Babergh and Mid Suffolk District Councils (B&MSDC)

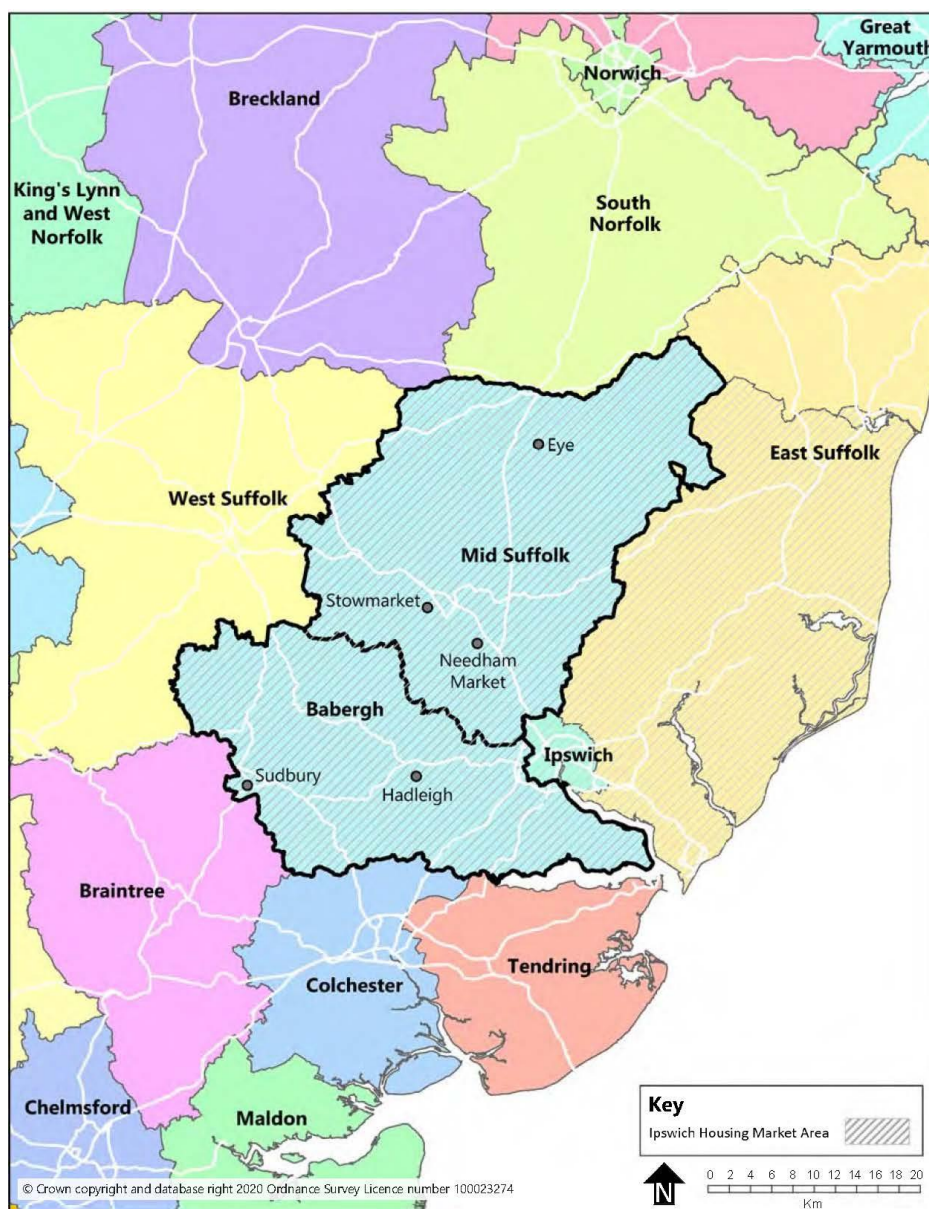
and

The Environment Agency (EA)

(Interim) October 2020

### 1. Areas covered by the Statement of Common Ground

The Statement of Common Ground relates to the area covered by the local planning authorities of Babergh District Council and Mid Suffolk District Council.



## **2. Signatories to this Statement of Common Ground**

The signatories to this Statement of Common Ground are:

- Babergh District Council;
- Mid Suffolk District Council; and
- The Environment Agency.

## **3. Purpose and Scope of Statement of Common Ground**

Local planning authorities have a statutory duty to co-operate with specified bodies in relation to strategic planning matters. The Environment Agency is a prescribed body subject to the duty to co-operate as set out in the Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended) and is required to be involved in the plan-making process.

Objections were raised by the Environment Agency to the consultation on the Babergh and Mid Suffolk Joint Local Plan Preferred Options document (July 2019), that the flood risk section of the Joint Local Plan was insufficient. Babergh and Mid Suffolk District Councils have sought to address these concerns as detailed in this Statement of Common Ground.

The scope of this Statement of Common Ground at this time is for agreement to the methodology and assumptions guiding the Strategic Flood Risk Assessment (SFRA) being undertaken for Babergh and Mid Suffolk District Councils, and that the correct data is being used. The Environment Agency is satisfied that the Level 1 SFRA is now acceptable. The Environment Agency has had sufficient reassurances following its letter referenced AE/2007/104001/CS-01/ISE-L01 and dated 17<sup>th</sup> July 2020 that all outstanding matters have been addressed. As the Level 1 SFRA proposed site allocations within the Flood Zone, a Level 2 SFRA is also being drafted. The EA has agreed to the assumptions forming the basis of the Level 2 SFRA, which must be completed in accordance with the Environment Agency's comments on the modelling approach document. Whilst the indicative outputs are highly encouraging, the Environment Agency will need to review the final outputs when available to ensure the models are sound before it is able to find the Local Plan sound on Flood Risk grounds, and changes may need to be made if any issues are found.

## **4. Strategic matters being addressed**

- i) Flood risk and water matters.

The Environment Agency commented on the SFRA in response to the Issues and Options as well as the Preferred Options stage in response to the Joint Local Plan consultation. The Issues and Options consultation response from the Environment Agency dated 10<sup>th</sup> November 2017 highlighted the models that have been superseded since the Babergh (2009) and Mid Suffolk (2008) SFRAs were drafted. Subsequent engagement as part of the Preferred Options consultation which took place between 22<sup>nd</sup> July and 30<sup>th</sup> September 2019 showed that the flood risk section of the preferred options document was insufficient as now more models had been superseded and so the evidence base supporting the Local Plan was insufficient. The key reasons why the Environment Agency found this insufficient being:

- 1) A Strategic Flood Risk Assessment (SFRA) should be seen as the starting point in assessing Flood Risk. This needs to show an up to date representation of fluvial and tidal flood risk in the current day with climate change.
- 2) The Local Plan and SFRAs do not currently use the most up to date fluvial and tidal Flood Zones and climate change flood risk data from the Environment Agency.

- 3) The site allocations should be constraints checked against flood risk in the current day and with climate change applied.
- 4) The SFRA should take account of the Environment Agency's concerns on site allocations that could increase flood risk to communities that are already at flood risk.

The Environment Agency therefore commented it was necessary to update the Babergh District Council SFRA 2009 and the Mid Suffolk District Council SFRA 2008 to take account of the updated detailed flood modelling as listed below.

#### Babergh District Council SFRA 2009

- River Stour fluvial model 2011
- River Box fluvial model 2012
- Coastal Stour and Orwell tidal model 2018
- River Stour fluvial model 2019
- \*DRAFT River Brett fluvial model 2019

#### Mid Suffolk District Council SFRA 2008

- River Gipping fluvial model 2012
- Needham Market fluvial model 2015
- Deben fluvial model 2010
- Debenham fluvial model 2014
- Deben fluvial model 2017
- Debenham fluvial model 2017
- \*DRAFT River Gipping fluvial model 2019

\* The River Brett fluvial model 2019 and River Gipping fluvial model 2019 were not complete at the time and were not available for use at the time the comment was made to the Joint Local Plan Preferred Options consultation in September 2019. Depending on when the modelled data for inclusion in an SFRA was requested, the model data may have been completed.

#### Outcomes

Babergh and Mid Suffolk District Councils appointed JBA Consulting Ltd in March 2020 to undertake a SFRA and a Water Cycle Study (WCS) as evidence to support the emerging Joint Local Plan.

The Environment Agency was unable to attend a meeting and confirm support to the Councils regarding development of the brief for the SFRA and WCS work to be undertaken. However, an e-mail was sent to Babergh and Mid Suffolk District Councils on 20<sup>th</sup> December 2019 outlining the need to ensure all fluvial and tidal hydraulic models assessed climate change appropriately; that there may be a need to undertake a Level 2 SFRA depending upon the outcome of the updated Level 1 SFRA (note this has now been undertaken); that there was new guidance on undertaking SFRAs; that the Councils may wish to define Flood Zone 3b in the SFRA; that it would be beneficial if the SFRA was web-based; and to define that the SFRA will include all sources of flooding, e.g. fluvial, tidal, groundwater, surface water etc.

An Inception Meeting was held in March 2020 with JBA Consulting Ltd, Suffolk County Council as Local Lead Flood Authority, and the Environment Agency.

In order to progress the SFRA and WCS to the satisfaction of the Environment Agency, it is necessary for the Environment Agency to be able to support both documents and be involved in their development. A draft Level 1 SFRA was provided to the Environment Agency for comment on 8<sup>th</sup> June 2020.

All parties agree the methodology and assumptions guiding the Level 1 SFRA report that has been undertaken for Babergh and Mid Suffolk District Councils are acceptable. The Environment Agency is satisfied that the necessary revisions highlighted in the Environment Agency's response referenced AE/2007/104001/CS-01/ISE-L01 and dated 17 July 2020 have been made. A Level 2 SFRA has been undertaken and the Environment Agency has provided their comments to the early stages of the modelling approach in its letter referenced AE/2007/104001/SF-01/PO1-L01 and dated 29<sup>th</sup> July 2020. The modelling must be carried out in accordance with this letter and the Environment Agency will need to comment further when the Level 2 SFRA is submitted for review as part of the upcoming regulation 19 consultation.



#### Outstanding matters:

- Babergh Mid Suffolk/JBA to complete and submit the Level 2 SFRA in accordance with the Environment Agency's comments to the Modelling Approach, as stated within their letter referenced AE/2007/104001/SF-01/PO1-L01 and dated 29<sup>th</sup> July 2020.
- The Environment Agency to provide feedback on the Level 2 SFRA beginning and ending through the regulation 19 Joint Local Plan consultation.

#### 5. Process for reviewing the Statement of Common Ground

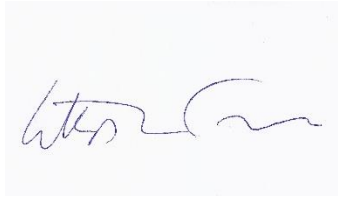
The Statement of Common Ground will be reviewed prior to the submission of the Joint Local Plan for Examination, unless exceptional urgent matters emerge requiring faster review, and will be updated where amendments are necessary.

#### 6. Signatories

<p>Signed on behalf of Babergh District Council</p>  <p>Name: Tom Barker Position: Assistant Director Sustainable Communities</p>	<p>Date: 11/11/20</p>
<p>Signed on behalf of Mid Suffolk District Council</p>  <p>Name: Tom Barker Position: Assistant Director Sustainable Communities</p>	<p>Date: 11/11/20</p>

Signed on behalf of the Environment Agency

Date: 12/11/2020

A handwritten signature in blue ink, appearing to read 'Stephen Taylor', is written on a light blue rectangular background.

Name: Stephen Taylor

Position: Sustainable Places Team Leader

Robert Hobbs  
Babergh District Council  
Planning Policy & Economic  
Development  
Endeavour House Russell Road  
Ipswich  
Suffolk  
IP1 2BX

**Our ref:** AE/2007/104001/CS-  
01/IS3-L01  
**Your ref:** Level 1 SFRA  
**Date:** 17 July 2020

Dear Mr Hobbs

### **Babergh Mid Suffolk Level 1 SFRA**

The Babergh and Mid Suffolk SFRA does not currently fulfil the requirements of a Level 1 SFRA as set out in the guidance [How to prepare a strategic flood risk assessment](#) available on gov.uk. Our comments below outline the amendments that need to be made to the report.

The majority of the flood mapping is limited to the allocated sites so does not provide a district scale strategic assessment of flood risk. As a result there are several areas of additional consideration or improvement in order to make the document and maps useful to developers and members of the public and to assist the council in applying the Sequential Test particularly in relation to windfall sites. We discuss this in detail below.

Please note that this response is based on a review of the report and a further response will be sent following the completion of the ongoing model review.

### **SFRA Report**

- Section 1.2 states that a Level 1 SFRA is required where flooding is not a major issue. This is currently incorrect and misleading. A level 1 SFRA is required regardless of if flooding is 'major issue' or not. Please update this text so it is in line with the wording and requirements of the SFRA guidance and the National Planning Policy Framework.
- Section 2.9.3 of the SFRA includes comments on the requirements for Flood Risk Activity Permits (FRAPs) under the Environmental Permitting Regulations. The requirements are not correct and must be amended as

follows: “*The EA also has powers to regulate and permit works to Main Rivers. **An environmental permit for flood risk activities may be required to do work in, under, over or within 8 metres (m) from a fluvial main river and from any flood defence structure or culvert or 16m from a tidal main river and from any flood defence structure or culvert***”.

- Section 3.2 of the SFRA states “*It is recommended that the Council makes reference to the SFRA climate change maps when applying the Sequential Test for site allocations and windfall sites to understand the potential change in risk over the lifetime of proposed development*”.

Paragraph 033 of the Planning Practice Guidance states “*Nor should it normally be necessary to apply the Sequential Test to development proposals in Flood Zone 1 (land with a low probability of flooding from rivers or the sea), unless the Strategic Flood Risk Assessment for the area, or other more recent information, indicates there may be flooding issues now or in the future (for example, through the impact of climate change)...*”

Without climate change flood extent mapping information for the Districts (where those models exist), it will be difficult for the Council to assess whether a windfall application should undertake a flood risk assessment or consider adaption mitigations for future flood risk. Climate change flood zone maps would help the Council in considering whether a windfall development located in Flood Zone 1 or 2 today would fall within a higher risk Flood Zone over its lifetime as a consequence of climate change. The opportunity to assess those risks and to consider mitigations may be lost (particularly if the site lies in Flood Zone 1 today and on face value would not require a flood risk assessment).

We appreciate that appendices J and K provide site level information for site allocations identified by the LPA, but there is no wider visual information on future Flood Zone 3a or Flood Zone 3b or Flood Zone 2 that could be used by either the council or developers for windfall site considerations.

These comments apply to the points on making decisions on individual planning applications and adapting to climate change and future flood management in the SFRA guidance on [.gov.uk](https://www.gov.uk).

We recommend that the Level 1 SFRA provides future flood extents as a mapped visual output in the SFRA with guidance for both councils on how they should use this to screen windfall planning applications that fall outside of the proposed allocations that have been evaluated as part of this plan.

- Section 4.2 – If SFRA is to be a living document then it would be sensible for the SFRA representation of Flood Zone 3b and 3a to be updated after the Environment Agency advises the LPA that the flood map has been updated. The text in the draft SFRA currently states that the mapping in the SFRA will not be automatically updated. Gov.uk SFRA guidance advises that it may be necessary to review your SFRA when there are changes to detailed flood modelling - such as from the Environment Agency or Lead Local Flood Authority. Providing maps in online GIS format (as advised in the gov.uk SFRA guidance) can help with rapid updating when new modelling outputs become available.

- Section 4.2.1 of the SFRA has determined that in areas where modelling was not available or models could not be run, it has been assumed that present day Flood Zone 2 represents future Flood Zone 3. This approach is acceptable to the Environment Agency.
- Section 4.7 of the SFRA states that “*The risk of inundation as a result of reservoir breach or failure of a number of reservoirs within the area has been mapped using the outlines produced as part of the National Inundation Reservoir Mapping (NIRIM) study. This data has been supplied by the EA. The data shows the maximum extent of flooding in the event of reservoir failure or overtopping*” with further detail on reservoir risk detailed in Section 5.11, which refers users of the SFRA to the Environment Agency website to view reservoir mapping.

The SFRA must assess reservoir flood risk for all the site allocations if it is to support the Local Plan in assessing all sources of flood risk and it is not clear whether this has been done within the Level 1 SFRA.

- We note that Section 7.9 states that “Future Flood Zone 2 has not been considered as part of the Level 1 SFRA and should be considered as part of the Level 2 SFRA or by developers through more detailed modelling”. The gov.uk SFRA guidance advises that the SFRA should identify areas of Flood Zone 1 where the sequential test and FRAs will be needed.

This is a missed opportunity that would have helped in the evaluation of allocations that currently lie in Flood Zone 1 close to Flood Zone 2 & 3 current day. There will have been no sequential consideration of those sites, when in effect they could potentially be at higher risk over their lifetime than other sites currently within Flood Zone 1 and potentially with worse flood characteristics than sites that currently sit within flood zones and which have been evaluated.

Will the Level 2 SFRA bring such sites into Sequential Test consideration if they fall in to future Flood Zone 2 from Flood Zone 1 today?

We recommend that future Flood Zone 2 is assessed, preferably in the Level 1 SFRA. If this cannot be achieved then it must be assessed in a Level 2 SFRA.

- Section 7.9 of the SFRA states that “If there were no potential development sites in a model domain, then the model has not been re-run as part of the SFRA”, as such this SFRA does not assess the future fluvial flood risk to the whole of the Babergh and Mid Suffolk’s local planning authority areas and instead focuses on an individual site level for the 312 allocated SHELAA sites. As stated above this is a missed opportunity to create a comprehensive SFRA and doesn’t help the councils in assessing windfall sites.
- Section 9.1 of the SFRA states that “B&MS have already narrowed down the SHELAA sites to 312 committed sites. Only the committed sites have been assessed as part of this study”. We would like to clarify if the 312 committed sites provide the local authorities with a 5 year supply of development land. If not, then not all sites that need to be assessed have been. Essentially, additional sites should be evaluated by the SFRA if these are likely to be considered for allocation by the local plan.



- Section 10.4.3 of the SFRA has included requirements that proposed finished floor levels for developments must provide 300mm freeboard on the 1% (1 in 100) flood event, including climate change and where the Environment Agency requires a 600mm freeboard must be applied. This approach is acceptable to the Environment Agency.
- The SFRA does not make mention of assessing climate change on surface water flood risk. The Environment Agency are not the statutory consultee for surface water, so please check with the Lead Local Flood Authority to see what requirements they may have on assessing surface water.

## **Appendix B – Flood Zone 3a**

The draft mapping as shown in Appendix B requires improvement to be at an acceptable standard for an SFRA as determined by the SFRA guidance on .gov.uk. In particular the current proposed mapping makes it significantly more difficult for users of the SFRA to apply the sequential test and in identifying the need for a site-specific flood risk assessment. For specific details see the bullet points below:

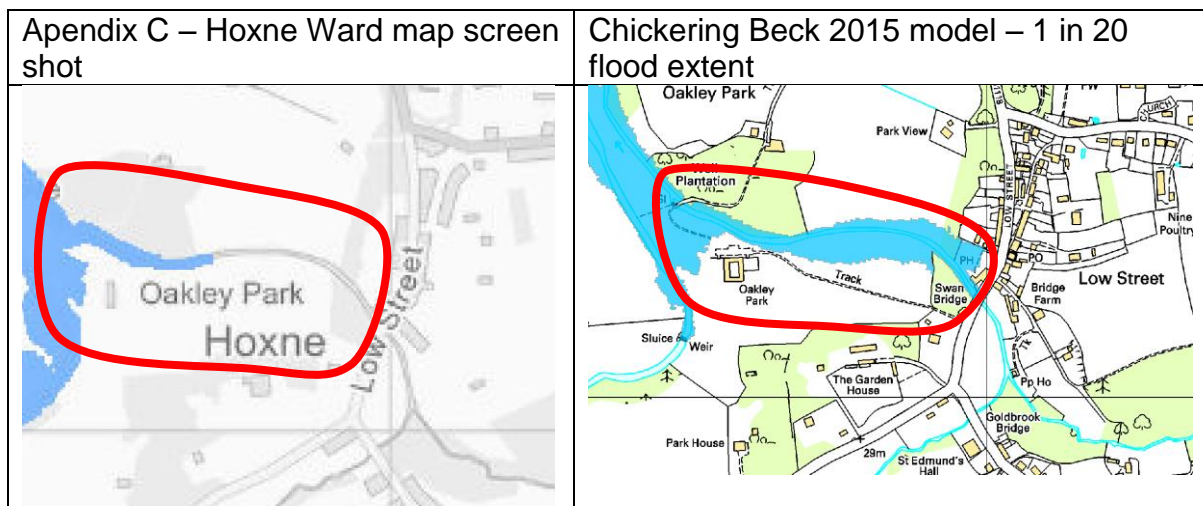
- Base mapping is not detailed enough to let the user pan and zoom to site scale and understand what Flood Zone they are in. You must use a higher resolution base mapping layer. Please see Appendix A map from the North Norfolk L1 SFRA as a good example of mapping, which is attached with our response.
- Flood Zones shown on the maps are not transparent enough, as such you cannot see the base mapping underneath to determine what Flood Zone a site is in. This results in the mapping being significantly less useful in helping users of the SFRA in applying the sequential test and in identifying the need for a site-specific flood risk assessment. You must amend the transparency of the Flood Zones to ensure that the base mapping underneath can be clearly seen. This change combined with a higher resolution base mapping will be significantly more helpful in allowing users of the SFRA to apply the sequential test and in identifying the need for a site-specific flood risk assessment. Please see Appendix A map from the North Norfolk L1 SFRA as a good example of mapping, which is attached with our response.
- Flood Zone 2 does not show up clearly on the maps. You must amend colour scheme of base mapping and / or of Flood Zone 2, so that it is clear where Flood Zone 2 is on the maps.
- Maps are displayed by ward and appear to be ordered alphabetically. This makes the mapping appendices disjointed geographically and very difficult to navigate for flood risk purposes. The maps should be ordered geographically or a contents page is provided.
- We note that all maps include greyed out areas outside of the ward boundary so it is not possible to see the base mapping underneath. Flood risk does not conform to ward boundaries so the greyed out areas and black dotted ward boundaries results in the mapping being significantly less useful in helping users of the SFRA to apply the sequential test and identify the need for a site-specific flood risk assessment. You should consider as a minimum removing

or increasing the transparency of the greyed out areas and black dotted ward boundaries from the maps. In conjunction with improving the base mapping this will make the maps more useable.

- Please note that the Environment Agency have not reviewed the Flood Zones within every map in this appendix. We have undertaken spot assessments of a number of the maps, to ensure that the Flood Zones 3a and 2 are correct against all our hydraulic models.

## Appendix C – Functional Floodplain FZ3b

- Where there are no detailed modelling of either 1 in 20 or 1 in 25 flood extents, FZ3 has been assumed as FZ3b. This approach is acceptable to the Environment Agency.
- Please note that the Environment Agency have not reviewed Flood Zone 3b within every map in this appendix. We have undertaken spot assessments of a number of the maps, to ensure that the Flood Zones 3b is correct against all our hydraulic models. We note the following issues with the mapping of Flood Zone 3b in appendix C:
- In Appendix C – Hoxne Ward Map we have noted that part of the 1 in 20 flood extent of the Chickering Beck 2015 model has not been used to define the Functional floodplain, resulting in the mapped extent underestimating the functional floodplain. You must amend this map to include the 1 in 20 flood extent from the Chickering Beck 2015 downstream of Swan Bridge (Low Road, Hoxne). See screenshots showing the issue below in the areas highlighted within red area:



## Appendix J – Future Flood Zone 3a

- The comments below regarding this appendix are subject to change depending on the results of model reviews that are currently being undertaken by us to assess the SFRA mapping of climate change.

- Please note that the Environment Agency have not reviewed future Flood Zone 3a within every map in this appendix, as the number and scale of the mapping makes reviewing all the maps unachievable within the timescales of this review. This highlights the difficulties that users of the SFRA will also have, due to how this SFRA visualises future Flood Zone 3a. Should a member of the public or a developer need to locate future Flood Zone 3a mapping for a specific site it will be very difficult or not possible. We have undertaken spot assessments of a number of the maps, to ensure that the future Flood Zones 3a is correct against all our hydraulic models. We note the following with the mapping of future Flood Zone 3a in appendix J:
- Map showing Land between Jacks Green Road and A14, Creeting St Mary – This site is in Current day Flood Zone 2 and 3a. Climate Change has not been assessed for this allocation site within this map. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land north of Barking Road, Needham Market – This site is in Current day Flood Zone 2 and 3a. Climate Change has not been assessed for this allocation site within this map. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land south of Union Road, Stowmarket – This site is in Current day Flood Zone 1. Climate Change has been assessed and shows that parts of this allocation site falls within Future Flood Zone 3a. Parts of this site will fall into Future Flood Zone 2, but has not been assessed as part of this SFRA. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land north of Ipswich Road, Debenham – This site is in Current day Flood Zone 3b, 3a and 2. Climate Change has been assessed and shows that parts of this allocation site falls within Future Flood Zone 3a. Parts of this site will fall into Future Flood Zone 2, but has not been assessed as part of this SFRA. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land west of Fishponds Way, Haughley – This site is in Current day Flood Zone 1. Climate Change has been assessed and shows that parts of this allocation site falls within Future Flood Zone 3a. Parts of this site will fall into Future Flood Zone 2, but has not been assessed as part of this SFRA. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land south of Glebe Way, Mendlesham – This site is in Current day Flood Zone 2 and 3a. Climate Change has not been assessed for this allocation site within this map. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land north of Church Lane, Barham – This site is in Current day Flood Zone 1. Climate Change has been assessed and shows that this allocation site falls is outside of Future Flood Zone 3a. Future Flood Zone 2

has not been assessed as part of this SFRA. This site will need further consideration within a Level 2 SFRA to support the Local Plan.

## **Appendix K – Future Flood Zone 3b**

- The comments below regarding this appendix are subject to change depending on the results of model reviews that are currently being undertaken by us to assess the SFRA mapping of climate change.
- Please note that the Environment Agency have not reviewed future Flood Zone 3b within every map in this appendix, as the number and scale of the mapping makes reviewing all the maps unachievable within the timescales of this review. This highlights the difficulties that users of the SFRA will also have, due to how this SFRA visualises future Flood Zone 3b. Should a member of the public or a developer need to locate future Flood Zone 3b mapping for a specific site it will be very difficult or not possible. We have undertaken spot assessments of a number of the maps, to ensure that the future Flood Zones 3b is correct against all our hydraulic models. We note the following with the mapping of future Flood Zone 3b in appendix K:
- Map showing Land between Jacks Green Road and A14, Creeting St Mary – This site allocation has been assessed as partly within current day Flood Zone 3b. Future Flood Zone 3b has not been assessed for this location. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land north of Barking Road, Needham Market – This site allocation has been assessed as partly within current day Flood Zone 3b. Future Flood Zone 3b has not been assessed for this location. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land south of Union Road, Stowmarket – This site allocation has been assessed as outside of current day Flood Zone 3b and future Flood Zone 3b.
- Map showing Land north of Ipswich Road, Debenham – Parts of this site is in Current day Flood Zone 3b. Climate Change has been assessed and shows that parts of this allocation site falls within Future Flood Zone 3b. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land west of Fishponds Way, Haughley – This site is outside of Current day Flood Zone 3b. Climate Change has been assessed and shows that parts of this allocation site falls within Future Flood Zone 3b. This site will need further consideration within a Level 2 SFRA to support the Local Plan.
- Map showing Land south of Glebe Way, Mendlesham – This site is in Current day Flood Zone 3b. Climate Change has not been assessed for this allocation site within this map. This site will need further consideration within a Level 2 SFRA to support the Local Plan.

- Map showing Land north of Church Lane, Barham – This site is outside of current day Flood Zone 3b. Climate Change has been assessed and shows that this allocation site falls outside of Future Flood Zone 3b.

We trust this advice is useful. Please do let me know should we be able to assist in any way.

Yours sincerely

A handwritten signature in black ink that reads "L. Robson".

**Mr Liam Robson**  
**Sustainable Places - Planning Advisor**

Direct dial 020 8474 8923

Direct e-mail [Liam.Robson@environment-agency.gov.uk](mailto:Liam.Robson@environment-agency.gov.uk)

Babergh District Council  
Planning Policy & Economic  
Development  
Endeavour House Russell Road  
Ipswich  
Suffolk  
IP1 2BX

**Our ref:** AE/2007/104001/SF-  
01/PO1-L01  
**Your ref:** 2020s0908  
**Date:** 29 July 2020

Dear Sir/Madam

### **Babergh Mid Suffolk Level 2 SFRA Modelling Approach Review**

We have undertaken a review of the model approach document for the level two Babergh & Mid Suffolk strategic flood risk assessment (SFRA) which was submitted to us via JBA on 7 July 2020. We have reviewed the document as submitted and have the following comments as below.

We also recommend the Level 2 SFRA is undertaken taking into account our comments on the specific sites provide in our previous responses uploaded to the online consultation portal for the preferred options local plan on 18 November 2019.

#### **All Models**

- Must assess speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism (e.g. breach or overtopping) of current day Flood Zones 3b, 3a and 2 and future Flood Zones 3b, 3a and 2 for each site assessed within the level 2 SFRA. More detail available on the [level 2 SFRA guidance](#) on .gov.uk.
- Where models are currently only 1D, they will need to be updated into 1D – 2D models for an appropriate sized area around the allocation sites of interest to appropriately assess speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism.
- Must assess current day Flood Zones 3b, 3a and 2. Where new models are proposed the current day Flood Zones will need to be updated as part of this level 2 SFRA.
- Must assess future Flood Zones 3b, 3a and 2 by applying the appropriate climate change percentages for fluvial (35% and 65%) and tidal flooding (higher central and upper end allowances). Please see link to the [climate change guidance](#) on .gov.uk for more detail.
- The level 1 SFRA only undertook climate change assessment of future Flood Zones 3b and 3a, and stated that an assessment of future Flood Zone 2 would be undertaken in a level 2 SFRA. As such it is now required that all the sites that fall into the level 2 SFRA must assess future Flood Zone 2.

- The level 2 SFRA must assess all flood mechanisms appropriate to the site allocations. This includes actual flood risk and residual flood risk. This means that the level 2 SFRA will assess defended flood risk, undefended flood risk and breach flood risk as is applicable to each site.
- A number of the sites to be assessed within the level two SFRA are in Stowmarket. Upstream of Stowmarket is a Flood Storage Reservoir. Please ensure that you undertake an appropriate reservoir flood risk assessment for the site allocations in Stowmarket

### **1.1 – SS065 – South of Glebe Way, Mendlesham**

- The Environment Agency Waveney model won't be ready until 2021 and is not undertaking detailed modelling of this upstream location on the River Dove.
- In the modelling approach proposed we confirm that collecting new survey and extending the existing model is appropriate. This new modelling will need to be 1D – 2D linked to appropriately assess the Depth, Hazard and Velocity on the site allocation.
- You propose to use the existing hydrology from the 2013 model. This may be an acceptable approach. You will have to undertake an assessment on whether the catchment scale hydrology for the River Waveney model 2013 are applicable to this upstream site.
- As stated in the "All models" section above Future Flood Zones 3b, 3a and 2, will need to be assessed within the models, providing speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism outputs.

### **1.2 – SS0264 – Ashes Farm, Stowmarket**

- As part of the Level 1 SFRA climate change scenarios (35% and 65%) were undertaken for Flood Zone 3b and 3a. We have just provided model review comments back on these and further work / clarification is required before they are suitable for use.
- As stated in the "All models" section above Future Flood Zones 3b, 3a and 2, will need to be assessed within the models, providing speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism outputs.
- As such the statement "no further modelling required" is incorrect and you are required to undertake modelling to ensure that Future Flood Zone 2 is appropriately assessed.
- Part of this site allocation is immediately downstream of the Stowmarket Flood storage reservoir and so is at risk of reservoir flooding. This must be appropriately assessed within the level 2 SFRA.
- We would also like to reiterate our previous response to this site allocation (submitted before we had the start-up meeting for the Level 1 SFRA) as a large portion of the potential development area is at risk of flooding from the River Gipping. The site is also at risk of reservoir flooding. We highly recommend that no development is undertaken between the River Gipping and Newton Road. There must be a detailed assessment of flood risk which demonstrates this can be firstly avoided or alternatively mitigated and managed.
- Stowmarket is a community already at risk of flooding from the River Gipping and surface water sources. There are properties at risk of frequent flooding. We are currently investigating options to manage flood risk in conjunction with updating the flood modelling for the River Gipping. As mentioned in the Level 1 SFRA it will be important that the updated modelling is incorporated into the SFRA when

it becomes available. This comment also applies to the other proposed sites in Stowmarket SS0668 and SS1223.

### **1.3 – SS0668 – Land south of Creting Road West, Stowmarket**

- The Environment Agency are not the responsible Authority for Surface Water. We ask that you consult with the Lead Local Flood Authority (LLFA) to confirm the accuracy of surface water flood risk at this location. You should also seek the LLFA's advice on whether you are required to apply climate change allowances to surface water to ensure that the site allocation can remain safe for the lifetime of the proposed uses.
- You should assess whether the site is at fluvial flood risk in Future Flood Zone 2. This must be assessed for this site as it was not assessed in the level 1 SFRA.

### **1.4 – SS0711 – Land east of Loraine Way, Sproughton**

- The River Gipping modelling project is ongoing and is not currently available for use.
- As stated in the "All models" section above Future Flood Zones 3b, 3a and 2, will need to be assessed within the models, providing speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism outputs.
- The model will need to be updated into a 1D - 2D model.

### **1.5 – SS0861 – Land south of Church Lane, Claydon**

- The Environment Agency are not the responsible Authority for Surface Water. We ask that you consult with the Lead Local Flood Authority (LLFA) to confirm the accuracy of surface water flood risk at this location. You should also seek the LLFA's advice on whether you are required to apply climate change allowances to surface water to ensure that the site allocation can remain safe for the lifetime of the proposed uses for all sources of flood risk.

### **1.6 – SS902 – Land south of Low Road, Debenham**

- As part of the Level 1 SFRA climate change scenarios (35% and 65%) were undertaken for Flood Zone 3b. We have just provided model review comments and further work / clarification is required before they are suitable for use.
- The Environment Agency Debenham model 2017 provides flood extents and level for future flood zone 2 with a 25% climate change allowance. The [climate change guidance](#) on .gov.uk treats future Flood Zone 2 and 3a the same. As such you will need to undertake an assessment of future Flood Zone 2 with 35% and 65% climate change allowances.
- As stated in the "All models" section above Future Flood Zones 3b, 3a and 2, will need to be assessed within the models, providing speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism outputs.
- We are aware that this site is currently allocated within the Debenham Neighbourhood Plan. This stipulates that access must be provided via Ipswich Road rather than Low Road. We support this position as it avoids installing access through the floodplain and over the main river, which could potentially exacerbate flood risk in the area and would therefore discourage. We believe an application has been made at this site already. We have raised an objection on flood risk grounds due to the proposal to culvert the watercourse.
- Modelling has demonstrated that upstream attenuation of flood water could have significant flood risk benefits for the village of Debenham; reducing both flood



extents and depths as well as economic damages (e.g. by avoiding flood damage to property). Increasing the attenuation of runoff from all developments upstream of the village could offer significant opportunities for reducing flood risk within the village of Debenham.

- We are currently working with Suffolk County Council on a Natural Flood Management (NFM) Project upstream of this site on the Cherry Tree Watercourse to attenuate flows. Care must be taken to ensure the benefit provided by the NFM scheme is not compromised by the surface water discharge from the proposed development and its discharge does not coincide with the flood peak thereby increasing flood risk.

### **1.7 – SS1198 – Land north of Laxfield**

- In the modelling approach proposed we confirm that collecting new survey and creating a new detailed model is appropriate. This new modelling will need to be 1D – 2D linked to appropriately assess the Depth, Hazard and Velocity on the site allocation.
- The Environment Agency confirm that this new model will have to undertake its own assessment of hydrology.
- As stated in the “All models” section above Future Flood Zones 3b, 3a and 2, will need to be assessed within the models, providing speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism outputs.

### **1.8 – SS1223 – Land at Mill Lane, Stowmarket**

- The Environment Agency confirm that the model will need to be updated to 1D – 2D.
- The Environment Agency confirm that the Watercourse to the north east of the site must be modelled. This will also need to be a 1D – 2D model.
- As stated in the “All models” section above Future Flood Zones 3b, 3a and 2, will need to be assessed within the models, providing speed of onset, flood depth, hazard, velocity, duration sources and flood mechanism outputs.

### **Review of further work**

We have reviewed the modelling approach document without charge as this forms our first engagement around setting the level 2 project up. Please be aware that all further engagement will fall under our cost recovery service for which we will need to send you a quote.

We trust this advice is useful.

Yours sincerely



**Mr Liam Robson**  
**Sustainable Places - Planning Advisor**

Direct dial 020 8474 8923

Direct e-mail [Liam.Robson@environment-agency.gov.uk](mailto:Liam.Robson@environment-agency.gov.uk)

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