Huntingdonshire Local Plan to 2036 Examination

EXAM/47: Representations to the Proposed Main Modifications 2018 Consultation (in Representor Order)

Part 3 of 4 – L

Huntingdonshire District Council
February 2018

Huntingdonshire
DISTRICT COUNCIL

Family or Company Name: Larkfleet Homes
Agent: RPS Group (Ayres, Tom)
PMM: MM1

Comment

Agent	Mr Tom Ayres (1118740)
Email Address	[redacted]
Address	[redacted]
Consultee	Larkfleet Homes Ltd (34707)
Company / Organisation	Larkfleet Homes
Address	c/o Agent c/o Agent c/o Agt
Event Name	Proposed Main Modifications 2018
Comment by	Larkfleet Homes (Larkfleet Homes Ltd - 34707)
Comment ID	PMM2018:75
Response Date	29/01/19 16:56
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Please tell us whether you support or object to this proposed main modification. Please note: **Support:** if you select support you will be stating that you think this proposed main modification is both **sound** and **legally compliant** . **Object:** if you select object you will be stating that you think this proposed main modification is either **unsound** and/ or is **not legally compliant** .

Do you	Object
Do you consider this proposed main modification to be sound?	Not Sound

It is important to understand how you think this proposed main modification is not sound. Please refer to the 'Proposed Submission Representations Advice Note' for more information about the options here. Please tick all that apply.

Do you consider this proposed main modification is not sound because it is not...

. Positively prepared
. Effective

Please say whether you think this proposed main modification is legally compliant. Please refer to the 'Proposed Submission Representations Advice Note' for more information about the issues covered by legal compliance.

Do you consider this proposed main modification to be legally compliant?

Not legally compliant

Please enter your representation here. You should say why you either support this proposed main modification or why you think it is not sound and/ or not legally compliant.

Please note: There are no limits on the length of representations but please be as concise as possible, including only that which is necessary to explain your representation. You can support your representation with supporting documents if you wish (see below) but please include clear references and reasoning as to why any attachments support your representation.

Note: Any representations that rely entirely on supporting documents and state 'See attached report' or similar for this question will not be accepted.

Please enter your representation here.

Note: The summary of the representation has been extracted and reproduced here, along with the recommended additional main modification. The full document is attached. 1.2 Summary of Representation 1.2.1 For the sake of brevity, the issues and matters put to the Examination are not wholly repeated here and are to be taken as duly made. Whilst commenting principally on the Modifications, Larkfleet wish to re-iterate their concerns as to the soundness and legal compliance of the Plan. 1.2.2 NPPF1 requires that to be sound, a Local Plan should be positively prepared, justified, effective and consistent with national policy. The Main Modifications proposed do not give rise to a positively prepared or effective plan over its 25- year plan period. Early Review of the Plan 1.2.3 The circumstances under which this Plan is being examined are unique. The Plan is being examined against NPPF1, but its effectiveness will be assessed against NPPF2. By planning for the minimum number of homes required (804dpa), the Plan has not been positively prepared, taking into account longer term requirements. This includes the accepted principle that housing need within Huntingdonshire and the wider region will increase significantly, through the onset of the government's local housing need assessment and the National Infrastructure Commission's finding that rates of housebuilding will need to double if the Cambridge-Milton Keynes-Oxford Arc, within which Huntingdonshire firmly sits, is to achieve its economic potential. The government has welcomed the NIC's finding that up to 1m homes will need to be built in the corridor by 2050. No allowance is made for this in the Plan. Other Authorities have prepared their plans with an early review mechanism built in to them in order commit to respond to these requirements at the earliest opportunity. If the Plan is to proceed to adoption, Huntingdonshire's Local Plan should do the same. Insufficient Flexibility 1.2.4 The Plan and its Modifications are not sufficiently flexible to adapt to rapid change, as required by paragraph 14 of NPPF1. The housing requirement of 20,100 homes (804dpa) will almost immediately be insufficient to meet longer term requirements, with no committed mechanism to remedy this. 1.2.5 Our assertion is that the Plan, and indeed the main modifications as proposed, do not comply with paragraph 157 of the NPPF1 which states that: Crucially, Local Plans should, inter alia: • Plan positively for the development and infrastructure required in the area to meet the objectives, principles and policies of this Framework; and • Be drawn up over an appropriate timescale, preferably 15 years, take account of longerterm requirements, and be kept up to date (our emphasis); 1.2.6 With regard to the delivery of housing, the ability to meet objectively assessed need with sufficient flexibility to adapt to rapid change is particularly important because the Plan's ability to maintain a five-year supply of housing will be assessed under the new definition of 'deliverable' as defined in the Glossary to NPPF2. Five Year Land Supply Shortfall 1.2.7 Having reviewed the new trajectory within MM1, RPS would still regard this trajectory as unnecessarily reliant on unidentified sites (windfalls) and large sites that evidentially take a long time to come forward. The trajectory is consequently extremely ambitious, such that the Plan's five-year land supply position upon adoption would be very fragile, if exist at all. When judged against the new deliverability test in NPPF2, RPS do not regard there to be a five-year land supply at all. 1.2.8 Larkfleet

retain their objections to the Plan. In particularly they consider there is a need for a third SEL to uplift the fragile housing land supply position and meet longer term housing requirements. However, if the Plan is to proceed to adoption, it is imperative that an appropriate early review mechanism is included within the Plan, through a new Main Modification Policy, that commits the Authority to undertaking a plan review within 4 years. The Inspector will be aware that such a mechanism has been agreed by the examining Inspectors for both the Cambridge and South Cambridgeshire Local Plans and for Plan: MK, to ensure that housing requirements, as reflected in the government's local housing need assessment and additional growth aspirations for the areas, are reflected in Local Plans at an early stage. 1.2.9 It is appropriate that these unique and transformational circumstances are appropriately planned for in Huntingdonshire's Plan. Wyton Airfield 1.2.10 Larkfleet object to the retention of the Note on Wyton Airfield within the Plan at para. 4.21 onwards, which has not been found to be deliverable, and in effect appears as a strategic reserve site by proxy. It is imperative, if an early review is to proceed fairly and taking into account all options, that this note is removed from the Plan, or if the Inspector is forcibly minded to do retain it, also include reserve sites that are demonstrably deliverable, such as Sibson Garden Village. Sustainability Appraisal 1.2.11 The Sustainability Appraisal has not been prepared in a systematic or transparent manner. Importantly, deficiencies in the Sustainability Appraisal process have prevented Larkfleet's site at Sibson Aerodrome from being given appropriate consideration as a reasonable alternative site. Sibson is a suitable, available and achievable site and has previously been supported by Huntingdonshire as an Authority. It is supported by a raft of technical evidence including a deliverable highway access solution at Appendix 3. 1.2.12 The decision not to consider Sibson as a reasonable alternative to the eventual distribution of growth strategy is considered both erroneous and unjustified. The Main Modifications do not address this fundamental concern as to the legal compliance of the Plan. 2.3.22 We recommend that, if the Inspector is minded to recommend adoption of the Plan, a new main modification is included as follows: The Council commits to undertaking an early review of the Huntingdonshire Local Plan with the submission of a draft plan for examination, containing strategic policies for the long-term growth of Huntingdonshire, no later than January 2023. The early review will establish a long-term housing need requirement based on the government's local housing need assessment and will bring the delivery of long-term requirement for transformational growth into a statutory planning policy document. The parameters and format of the review will also reflect Huntingdonshire's location within government's wider Cambridge-Milton Keynes-Oxford Growth Arc, in the context of any potential growth deal as well as any associated national infrastructure projects and the corridor wide Joint Vision Statement anticipated in Spring/Summer 2019. The review will also develop and formalise, as appropriate, joint working arrangements with neighbouring authorities within the Peterborough Cambridgeshire Combined Authority Area, which may result in the preparation of a joint strategic plan on a wider geography. If the review of the Huntingdonshire Local Plan is not submitted for examination by January 2022, the Council commits to either a) bringing forward a reserve site allocation b) working proactively with the promoters of sites which will help to deliver the Council and government's longer-term growth ambitions. 2.3.23 In addition to the above additional modification, it is clear that Wyton Airfield is not a deliverable site at this time and cannot be included as a positive allocation in the Plan. As a result, it is inappropriate to include the Note on Wyton Airfield in the Local Plan (at para 4.21 onwards). This not only unfairly prejudices the ability of other sites to come forward but appears as a fait accompli for Wyton without the Council having been through the process of examining and assessing potential sites as part of the early review process. It is by proxy applying reserve site status to Wyton without any evidence to support this or thorough testing of other appropriate locations for reserve sites. 2.3.24 Larkfleet do not support this principle, however, if the Inspector is forcibly minded to retain a note on potential reserve sites, it is important that other alternatives are also considered.

Please tell us whether changes can be made to address the issue(s) you have identified.

Can the issue(s) you have identified be addressed by making changes to the proposed main modification? Yes

Please tell us what changes would address the issue(s) that you have identified.

You should say why these changes will make this proposed main modification sound and/ or legally compliant.

It would be helpful if you could include revised wording of any policy or text. Please identify additional text by underlining it (**U**) and identifying any text to be deleted by striking it through (**ABC**).

What changes would address the issue(s) that you have identified?

2.3.22 We recommend that, if the Inspector is minded to recommend adoption of the Plan, a new main modification is included as follows:

The Council commits to undertaking an early review of the Huntingdonshire Local Plan with the submission of a draft plan for examination, containing strategic policies for the long-term growth of Huntingdonshire, no later than January 2023.

The early review will establish a long-term housing need requirement based on the government's local housing need assessment and will bring the delivery of long-term requirement for transformational growth into a statutory planning policy document.

The parameters and format of the review will also reflect Huntingdonshire's location within government's wider Cambridge-Milton Keynes-Oxford Growth Arc, in the context of any potential growth deal as well as any associated national infrastructure projects and the corridor wide Joint Vision Statement anticipated in Spring/Summer 2019.

The review will also develop and formalise, as appropriate, joint working arrangements with neighbouring authorities within the Peterborough Cambridgeshire Combined Authority Area, which may result in the preparation of a joint strategic plan on a wider geography.

If the review of the Huntingdonshire Local Plan is not submitted for examination by January 2022, the Council commits to either a) bringing forward a reserve site allocation b) working proactively with the promoters of sites which will help to deliver the Council and government's longer-term growth ambitions.

2.3.23 In addition to the above additional modification, it is clear that Wyton Airfield is not a deliverable site at this time and cannot be included as a positive allocation in the Plan. As a result, **it is inappropriate to include the Note on Wyton Airfield in the Local Plan (at para 4.21 onwards)**. This not only unfairly prejudices the ability of other sites to come forward but appears as a fait accompli for Wyton without the Council having been through the process of examining and assessing potential sites as part of the early review process. **It is by proxy applying reserve site status to Wyton without any evidence to support this or thorough testing of other appropriate locations for reserve sites.**

Larkfleet do not support this principle, however, if the Inspector is forcibly minded to retain a note on potential reserve sites, it is important that other alternatives are also considered.

Summary

Objection based on the plan not being effective over its lifetime, having insufficient flexibility in its housing supply and the housing trajectory being unnecessarily reliant on windfalls and large sites. An additional main modification is advocated requiring an early review early review. Removal is sought of any reference to Wyton airfield or comparable addition of Sibson garden village as a reserve site. Continuing concerns expressed over the sustainability appraisal undertaken regarding consideration of reasonable alternatives.

HUNTINGDONSHIRE LOCAL PLAN TO 2036: MAIN MODIFICATIONS 2018 CONSULTATION

RPS for Larkfleet Homes

Sibson
Huntingdonshire Local Plan
To 2036: Main Modifications
2018 Consultation

29 January 2019

rpsgroup.com

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Date
1	Representation	Tom Ayres	Paul Hill	Paul Hill	January 2019

Approval for issue

Reviewed by	Tamsin McSmith	Date. 29 Jan 2019
Authorised by:	Cameron Austin-Fell	Date. 29 Jan 2019

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Prepared by:

RPS

Tom Ayres MRTPI
Senior Associate

[redacted]

Prepared for:

Larkfleet Homes

Contents

1 INTRODUCTION

1.1 Status of Main Modifications

1.1.1 These representations are submitted to the Huntingdonshire Local Plan Main Modifications consultation process. They are submitted by RPS on behalf of Larkfleet Homes. Larkfleet have several land interests in Huntingdonshire, the main one being the omission site of the proposed Garden Village at Sibson Aerodrome.

1.1.2 As the Inspector is aware, Larkfleet have participated throughout the Examination process, objecting to the Plan's distribution strategy, its under-assessment of the housing need requirement and the delivery rates attributed to its large draft allocation sites.

1.1.3 Larkfleet have also registered, through both RPS representations and legal opinion provided by No5 Chambers, their very real concerns regarding the Sustainability Appraisal and its compliance with both statute and national planning practice guidance.

1.1.4 This representation principally relates to MM1 and the proposed amendments to Policy LP2 Strategy for Development, including its associated explanatory text. It also relates to the accompanying Proposed Modifications 2018 Sustainability Appraisal.

1.1.5 Whilst the Inspector indicated a number of Main Modifications required for soundness in his note published 14 November 2018 and which now form the basis for this Main Modifications consultation, the Examination is yet to be concluded and the Inspector's final report is yet to be published. Therefore, all comments made by the Inspector are understood to be without prejudice to his final conclusions on the Plan.

1.2 Summary of Representation

1.2.1 For the sake of brevity, the issues and matters put to the Examination are not wholly repeated here and are to be taken as duly made. Whilst commenting principally on the Modifications, Larkfleet wish to re-iterate their concerns as to the soundness and legal compliance of the Plan.

1.2.2 NPPF1 requires that to be sound, a Local Plan should be positively prepared, justified, effective and consistent with national policy. The Main Modifications proposed do not give rise to a positively prepared or effective plan over its 25- year plan period.

Early Review of the Plan

1.2.3 The circumstances under which this Plan is being examined are unique. The Plan is being examined against NPPF1, but its effectiveness will be assessed against NPPF2. By planning for the minimum number of homes required (804dpa), the Plan has not been positively prepared, taking into account longer term requirements. This includes the accepted principle that housing need within Huntingdonshire and the wider region will increase significantly, through the onset of the government's local housing need assessment and the National Infrastructure Commission's

finding[1] that rates of housebuilding will need to double if the Cambridge-Milton Keynes-Oxford Arc, within which Huntingdonshire firmly sits, is to achieve its economic potential. The government has welcomed the NIC's finding that up to 1m homes will need to be built in the corridor by 2050. No allowance is made for this in the Plan. Other Authorities have prepared their plans with an early review mechanism built in to them in order commit to respond to these requirements at the earliest opportunity. If the Plan is to proceed to adoption, Huntingdonshire's Local Plan should do the same.

Insufficient Flexibility

1.2.4 The Plan and its Modifications are not sufficiently flexible to adapt to rapid change, as required by paragraph 14 of NPPF1. The housing requirement of 20,100 homes (804dpa) will almost immediately be insufficient to meet longer term requirements, with no committed mechanism to remedy this.

1.2.5 Our assertion is that the Plan, and indeed the main modifications as proposed, do not comply with paragraph 157 of the NPPF1 which states that:

Crucially, Local Plans should, inter alia:

- *Plan positively for the development and infrastructure required in the area to meet the objectives, principles and policies of this Framework; and*
- *Be drawn up over an appropriate timescale, preferably 15 years, take account of longer-term requirements, and be kept up to date (our emphasis);*

1.2.6 With regard to the delivery of housing, the ability to meet objectively assessed need with sufficient flexibility to adapt to rapid change is particularly important because the Plan's ability to maintain a five-year supply of housing will be assessed under the new definition of 'deliverable' as defined in the Glossary to NPPF2.

Five Year Land Supply Shortfall

1.2.7 Having reviewed the new trajectory within MM1, RPS would still regard this trajectory as unnecessarily reliant on unidentified sites (windfalls) and large sites that evidentially take a long time to come forward. The trajectory is consequently extremely ambitious, such that the Plan's five-year land supply position upon adoption would be very fragile, if exist at all. When judged against the new deliverability test in NPPF2, RPS do not regard there to be a five-year land supply at all.

1.2.8 Larkfleet retain their objections to the Plan. In particularly they consider there is a need for a third SEL to uplift the fragile housing land supply position and meet longer term housing requirements. However, if the Plan is to proceed to adoption, it is imperative that an appropriate early review mechanism is included within the Plan, through a new Main Modification Policy, that commits the Authority to undertaking a plan review within 4 years. The Inspector will be aware that such a mechanism has been agreed by the examining Inspectors for both the Cambridge and South

[1] 'Partnering for Prosperity: a new deal for the Cambridge – Milton Keynes – Oxford Arc', National Infrastructure Commission, November 2017

Cambridgeshire Local Plans and for Plan: MK, to ensure that housing requirements, as reflected in the government's local housing need assessment and additional growth aspirations for the areas, are reflected in Local Plans at an early stage.

1.2.9 It is appropriate that these unique and transformational circumstances are appropriately planned for in Huntingdonshire's Plan.

Wyton Airfield

1.2.10 Larkfleet object to the retention of the Note on Wyton Airfield within the Plan at para. 4.21 onwards, which has not been found to be deliverable, and in effect appears as a strategic reserve site by proxy. It is imperative, if an early review is to proceed fairly and taking into account all options, that this note is removed from the Plan, or if the Inspector is forcibly minded to do retain it, also include reserve sites that are demonstrably deliverable, such as Sibson Garden Village.

Sustainability Appraisal

1.2.11 The Sustainability Appraisal has not been prepared in a systematic or transparent manner. Importantly, deficiencies in the Sustainability Appraisal process have prevented Larkfleet's site at Sibson Aerodrome from being given appropriate consideration as a reasonable alternative site. Sibson is a suitable, available and achievable site and has previously been supported by Huntingdonshire as an Authority. It is supported by a raft of technical evidence including a deliverable highway access solution at **Appendix 3**.

1.2.12 The decision not to consider Sibson as a reasonable alternative to the eventual distribution of growth strategy is considered both erroneous and unjustified. The Main Modifications do not address this fundamental concern as to the legal compliance of the Plan.

2 MODIFICATION MM1 (STRATEGY AND HOUSING DELIVERY)

2.1 Housing Delivery

2.1.1 MM1 relates to Policy LP2 Strategy for Development and includes a new Summary Housing Trajectory. The Inspector's note on the housing trajectory, published 14 November 2018, agrees with many respondents' views during the Examination hearings that the Council's delivery estimates for the Strategic Expansion Location (SELs) and major draft allocation sites were overly optimistic. Accordingly, the new trajectory has limited total annual completions from SEL1.1, SEL1.2 and HU1 to a maximum of 300 and from both parts of SEL2 to 200, meaning they will not be fully deliverable within the remaining plan period. Other proposed allocations have also been removed from the supply trajectory.

2.1.2 The revised supply trajectory is shown below:

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	Total 2018-36
Sites with planning permission (PP) as at 31 March 2017* (excluding those allocated in Plan)	329	153	104	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605
All sites allocated in Plan (with PP, subject to S106 and without PP)	727	1,085	1,326	1,409	1,304	1,133	812	710	538	520	500	500	515	515	500	500	500	500	13,594
Prior approvals	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	360
Additional sites of 10 or more dwellings with PP/subject to S106 since March 2017	-	-	-	48	50	75	75	75	40	-	-	-	-	-	-	-	-	-	363
Windfall small sites (less than 10 dwellings)	-	-	-	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	1,200
Rural exception sites	-	-	-	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	525
Total	1,076	1,258	1,450	1,611	1,489	1,343	1,022	920	713	655	635	635	650	650	635	635	635	635	16,647
				7,151															

* including 10% discount of all small sites where not started.

Total supply in plan period

Completions 2011/12-2017/18	4,421
Supply 2018/19-2035/36	16,647
Total supply 2011-2036	21,068

2.1.3 The revised trajectory indicates a total supply figure of 21,068 dwellings (16,647 over the remaining plan period) against a (disputed) housing requirement of 20,100 (804dpa). This comprises a supply buffer of just 968 dwellings or 104.8% supply against the requirement. Moreover, when unidentified supply (windfalls) is discounted, the supply figure falls to 18,378, comprising 4,421 completions and 13,957 (13,594 + 363) allocations or additional permissions. The Plan therefore has an identifiable supply comprising just 91.4% of the housing requirement.

2.1.4 **Appendix 1** contains analysis by SPRU. This identifies that the delivery rates within the revised trajectory remain unrealistic. The maximum delivery rate assumed for SEL1.1, SEL1.2 and HU1 combined of 300dpa and for SEL2 of 200dpa is actually being applied as an average that is expected to be sustained for the remainder of the Plan period from 2022 onwards. This would represent unprecedented rates of delivery when viewed against historical rates of supply both locally or nationally. SPRU calculate, assuming reasonable rates of delivery, that there exists a **demonstrable Plan period supply of just 14,604 dwellings**, before windfalls are discounted.

2.1.5 RPS has previously made representations at Reg19 stage and within its Matter 3 Statement that the Plan has an over reliance on only two strategic expansion sites in concentrated market locations, the effect of which will be elongated delivery rates and stifled supply. The revised trajectory is clearly reliant on large locational sites delivering at the maximum level over a sustained period but is also reliant on windfall sites, rural exceptions and prior approvals to meet its overall housing requirement. As a result, the MM poses significant risk and uncertainty associated with projected rates of housing delivery, particularly within the first five years following adoption. It is therefore fundamental to the soundness of the Plan that further flexibility is embedded to ensure the housing requirement is delivered in full, over the plan period. MM1 does not provide for this.

2.1.6 Paragraph 47 of NPPF1 requires local planning authorities to boost significantly the supply of housing and identify a supply of specific developable sites, where possible, between years 6 and 15. Windfalls do not constitute specific developable sites. The Council have not identified any small sites under 10 dwellings (other than those already allocated in the Plan) within its Brownfield Register that could constitute reliable windfalls. As such, there is no compelling evidence, as per the requirement of paragraph 48 of the NPPF1, that windfall sites under 10 dwellings will be a reliable source of supply. Equally, there is no compelling evidence to support the reliance on 20 prior approvals being delivered per year and 35 rural exceptions per year over the remainder of the Plan period. Prior approvals in the district have been reducing steadily since 2015 and the Council's evidence within Exam 41 indicates there have only been 52 affordable dwellings completed on rural exception sites in the 3 years from 2015/2016. With increased affordable housing set to come forward through allocations, it is logical to think rural exceptions will reduce rather than increase.

2.1.7 The Council are in contravention of paragraph 47 of the Framework, not only by failing to boost the supply of housing, but by relying on windfalls and other unidentified sources of supply within years 6-15, where it is not necessary to do so. There are a number of alternative identifiable sites, including the site at Sibson Garden Village, which are demonstrably deliverable within years 6-15 and which would serve to significantly boost the supply of housing.

2.1.8 Paragraph 14 of NPPF1 requires Local Plans to meet their OAN with sufficient flexibility to adapt to rapid change and paragraph 47 requires plans to plan positively and take into account longer term requirements. A buffer of 4.8% that is reliant on just two SELs to deliver most of the housing and is also reliant on unidentified sources of supply is not considered to constitute sufficient flexibility, nor is it planning positively or taking account of longer-term requirements.

2.1.9 The trajectory within MM1 indicates that within the 15-year time horizon following adoption, supply starts to fall dramatically after the first five years. This is because the Plan fails to provide sufficient flexibility, such as by allocating a further large-scale strategic development site that would make allowances for longer term requirements.

2.1.10 SPRU (Appendix 1) indicate that one implication of failing to plan positively is that the there is an inability of the Plan to cope if as expected there is a delay in some sites coming forward. Tellingly, additional provision from the two SEL locations, i.e. from another outlet, is unlikely to occur due to the marketability / saturation of a single location. To illustrate the issue, even if one was to

apply the national average rate of 171dpa[2] from each of the SEL sites, without slippage, the overall delivery would reduce by some 2,370 dwellings and so would not deliver the selected housing requirement.

2.2 Five Year Supply

2.2.1 MM1 includes a new trajectory which significantly reduces the level of housing supply that would come forward in the first five years following adoption of the Plan. Using the new trajectory and applying the Council's 5yls methodology as contained in Exam26, the following 5yls positions are evident. Two are provided, based on either a 2018/19 5yls base date and a 2019/20 5yls base date. The 2018/19 base date is considered by RPS to be the appropriate base date given that completions are referenced at 4,421 in MM1 as up to 2017/18 and 2018/19 completion data is unknown and unlikely to be available until July 2019.

2018/19 five-year supply base date	Local Plan Target
Start	01/04/2011
End	31/03/2036
Number of Years	25
Number of Years remaining in DP	18
Dwelling Target	20100
Target 2011-2018	5628
Annualised target	804
Completions since plan start date	4421
Shortfall on target 2011-2018	1147
5 year target + shortfall	5167
5 year target + shortfall x 20%	6200
Annual equivalent of target + shortfall x 20%	**1240**
5 year supply (2018/19-2022/23)	**6884**
% achievable supply	**111%**
Equivalent years of supply	**5.55**

2019/20 five-year supply base date	Local Plan Target
Start	01/04/2011
End	31/03/2036
Number of Years	25
Number of Years remaining in DP	17
Dwelling Target	20100
Target 2011-2018	6432
Annualised target	804
Completions since plan start date	5497
Shortfall on target 2011-2018	935
5 year target + shortfall	4995
5 year target + shortfall x 20%	5994
Annual equivalent of target + shortfall x 20%	**1198**
5 year supply 2019/20-2023/24)	**7151**
% achievable supply	**119%**
Equivalent years of supply	**5.97**

2.2.2 It is evident that the new trajectory within MM1 has significantly worsened the Plan's 5yls position such that it is considerably more fragile than the 6.44 years presented by the Council within Exam26. This used a 2019/20 5yls base date and assumed a supply of 7,552 dwellings over the five years, excluding windfalls.

2.2.3 If one was to follow this approach and exclude windfalls now, as the evidence above indicates, albeit allowing for known windfalls with planning permission, the 5yls figure reduces to 6,554,

[2] NLP Start to Finish: How Quickly do Large Sites Deliver, November 2016

(5.28 years) using a base date of 2018/19 or 6,706 (5.6 years) using a base date of 2019/20. Using this approach, the fragility of the Plan's supply becomes ever more apparent.

Five-year supply minus unidentified windfall allowance

2018/19 five-year supply base date	Local Plan Target	**2019/20 five-year supply base date**	Local Plan Target
Start	01/04/2011	Start	01/04/2011
End	31/03/2036	End	31/03/2036
5 year supply (2018/19-2022/23)	**6554**	**5 year supply 2019/20-2023/24)**	**6706**
% achievable supply	**105.7%**	**% achievable supply**	**112%**
	5.28	**Equivalent years of target + shortfall + 20%**	**5.6**

2.2.4 Whilst the Inspector needs to assess the Local Plan under NPPF1, given the fragility of the supply, the scale of the supply must be a consideration, when considering the need for additional flexibility, to ensure when the plan and 5yls is subsequently tested against the revised definition of deliverability in NPPF2, it can still maintain a 5yls. This is relevant in the context under NPPF2, the Plan will now only be considered recently adopted[3], and therefore free from 5yls challenge, until 31 October 2019 if adopted before 30 April 2019 or until 31 October 2020 if adopted between 01 May and 31 October 2019.

2.2.5 Annex 2 of NPPF2 now importantly states that *"sites with outline planning permission, permission in principle, allocated in the development plan or identified on a brownfield register should only be considered deliverable where there is clear evidence that housing completions will begin on site within five years".*

2.2.6 RPS has compared the trajectory within MM1 with the trajectory as appears in Exam 26, which is accepted as the starting point. It is evident that, whilst no details of assumptions made about individual sites are provided within the revised trajectory, high completion rates are still assumed within the first five years of the plan.

SEL1.1, 1.2 and HU1

2.2.7 Particularly concerning is the continued assumption that Alconbury Weald (SEL1.1) alone will deliver over 200 and up to 260 homes a year consistently over the five-year period, prior to SEL1.2 and HU1 starting to deliver. There is no basis for assuming this rate of delivery.

2.2.8 With regards to HU1, it is noted that this site is projected to deliver 130 dwellings per year in 2022/23 and 2023/24, and therefore is regarded as deliverable within the 5 years. Given the protracted history of the site and clear acknowledged technical constraints, clear evidence does not exist to assume this site should is deliverable within the five years under NPPF2.

2.2.9 If one was discount HU1 and apply national average delivery rates of 171dpa consistently over the five years to SEL1.1 as indicated in the Lichfield Report Start to Finish, itself optimistic based on the need for further reserved matters applications, the level of supply over the five years 2018/19-2022/23 would fall by 422 homes and 2019/20-2023/24 by 515 homes. This assumes the new trajectory applies a maximum delivery rate of 300dpa as indicated in MM1.

[3] NPPF2, page 21, footnote 38.

SEL2

2.2.10 It is noted that MM1 seeks to limit delivery from SEL2 to a maximum of 200dpa. Again, this seems unrealistic based on previous rates of delivery locally (Loves Farm) and average national delivery rates. As concerning is that SEL2 remains expected to begin delivering homes in 2019/20, despite no reserved matters consent being in place. We know that lead in times for large sites are considerably longer than is anticipated within the Council's supply trajectory. For sites over 2,000 homes, average lead in times are 7 years[4]. If one was to reasonably assume that delivery as indicated of 65 homes in the first year occurred in 2020/21 and thereafter 171dpa over the combined site between 2021/22- 2023/24, this would result in a reduction in supply of 258 dwellings for 2018/19-2022/23 five-year period and 287 dwellings for the 2019/20-2023/24 five-year period.

2.2.11 Even before interrogating the remaining supply against the new definition of deliverable, it is evident that the revised trajectory is extremely vulnerable taking into account reasoned evidence regarding expected supply / national delivery rates and the new definition of deliverable. Indeed, the total reduction in supply over the five years would be 680 or 802 dwellings depending on which base date for the five-year supply calculation you used.

2.2.12 The table below indicates that a five-year supply can't be demonstrated where the above is applied and removing any allowance for unidentified windfalls.

RPS Five Year Supply

2018/19 five-year supply base date	Local Plan Target	**2019/20 five-year supply base date**	Local Plan Target
Start	01/04/2011	Start	01/04/2011
End	31/03/2036	End	31/03/2036
5 year supply (2018/19-2022/23)	**5874**	**5 year supply 2019/20-2023/24)**	**5904**
% achievable supply	**94.7**	**% achievable supply**	**95.2%**
	4.74	**Equivalent years of target + shortfall + 20%**	**4.93**

2.3 Planning Positively for Housing Need

2.3.1 It is evident from the supply analysis undertaken above and by SPRU in Appendix 1 that MM1 will result in insufficient flexibility to ensure the housing requirement is delivered in full over the plan period. The situation becomes ever more critical when housing need is considered. It is appropriate in a plan led system, that any shortfall or allowance for future housing needs is addressed through the plan making process.

2.3.2 Paragraph 46 of the government's consultation document 'Planning for the Right Homes in the Right Places' (2017) stated:

"We want to make sure that we give proper support to those ambitious authorities who want to deliver more homes".

[4] NLP Start to Finish: How Quickly do Large Sites Deliver, November 2016

2.3.3 This reflects the government's expectation, now enshrined within paragraph 11 of NPPF2, that local planning authorities should provide for objectively assessed needs as a minimum, and that support will be given to those that want to go further to boost the supply of housing, in accordance with NPPF1.

2.3.4 This is relevant in the context of paragraph 47 of NPPF1, which states:

"Crucially, Local Plans should, inter alia:

Plan positively for the development and infrastructure required in the area to meet the objectives, principles and policies of this Framework; and

Be drawn up over an appropriate timescale, preferably 15 years, take account of longer-term requirements, and be kept up to date (our emphasis);"

2.3.5 Paragraph 21 of NPPF1 highlights the impact of lack of housing on the economy and states that:

"Policies should be flexible enough to accommodate needs not anticipated in the plan and to allow a rapid response to changes in economic circumstances;"

2.3.6 As it stands, MM1 will result in the Plan being unable to meet even its most minimum housing requirement within the Plan period. This represents a failure of ambition to plan positively to boost the supply of housing, in accordance with national policy. In terms of taking into account longer term requirements in accordance with paragraph 47, there are a number of critical factors which Modifications to the Plan should take account of in order to ensure an effective, positively prepared document.

Local Housing Need

2.3.7 As has been indicated throughout our representation, and reiterated within the SPRU paper at Appendix 1, the housing requirement being taken forward is a significant under-estimation of housing need. In Huntingdonshire's case, the standard methodology produces a requirement of 993dpa or 28,435 dwellings in total.

2.3.8 Furthermore, the methodology as it stands will only result in plans making provision for 266,000dpa compared to the governments objective of 300,000dpa. As a result, it is extremely unlikely given the government's continued commitment to the 300,000 figure, that any reworking of the method will result in a reduction in the overall requirement figure or for Huntingdonshire itself.

2.3.9 Of course, the Plan must be considered under NPPF1, but this doesn't remove the obligation to plan positively and take account of longer-term requirements. The Plan fails to acknowledge an increased future housing requirement, in fact, it seeks to achieve just barely enough even against a minimum housing requirement figure. Plans must be sufficiently flexible to adapt to rapid change. Even when assessed against its minimum housing requirement figure it is currently incapable of providing sufficient flexibility to render it NPPF1 compliant. It is even more important in the context of an increased future need, that this requirement is met robustly.

2.3.10 The vulnerability of the Plan in respect of its ability to adapt to changing economic circumstances (NPPF1 para.21) is detailed in SPRU's analysis at Appendix 1, para.1.22. It is evident in particularly that the housing requirement figure of 804dpa fails to take into account any of the market indicators for projected employment growth such that there is a serious mismatch between anticipated employment growth and the level of housing need being planned for.

The Cambridge–Milton Keynes–Oxford Corridor

2.3.11 Huntingdonshire is an important constituent of the Oxford Cambridge Arc. It is the government's stated ambition to build up to 1 million high quality homes by 2050 to maximise the economic growth of the Arc[5]. This will require *"a step change in housing delivery' including engagement on how this can be accommodated through vibrant new and expanded settlements."*

2.3.12 The National Infrastructure Commission (NIC) Report 'Partnering for Prosperity' November 2017 was clear that the continued success of the Arc is not guaranteed. It states that:

'without swift and determined action to overcome the area's housing crisis, it will fall behind its international competitors and fail to attract and retain the talent and skills it needs

Commitment to providing new strategic infrastructure must be matched with ambition and commitment at a local level to deliver major housing growth and create places in which people want, and can afford, to live and work."

2.3.13 The NIC's central finding within its 2017 report is that rates of house building will need to double if the arc is to achieve its economic potential. It explains that it is unlikely that this level or quality of development can be delivered if growth is focused exclusively on the fringes of existing towns and cities. Government and local authorities will need to plan for, and work with investors, developers and housebuilders to deliver large new settlements and major urban extensions.

2.3.14 In addition to this, the Housing Minister Kit Malthouse wrote to Huntingdonshire[6] and the other Authorities within the Arc stating that realising this ambition will require additional action from central and local partners. The letter invited local authorities to bring forward ambitious proposals for transformational housing growth, including new settlements, calling for swift action.

2.3.15 It is of course appropriate that the planning system should be genuinely plan led. Plans should be prepared positively, taking account of longer-term requirements.

2.3.16 In this instance the modifications to the Plan fail to give any regard to impending transformational growth within both Huntingdonshire and the wider region. By planning for a minimum level of housing need, the Plan fails to look forward at all and is liable to immediate pressure from five-year land supply challenge which could give rise to unwanted development.

2.3.17 No regard is given to the implications of the Oxford Cambridge Arc. Not only does this appear to ignore the recommendations of the NIC for collective joint working to prepare sub-regional spatial strategies, including formulating the Cambridge and Peterborough Combined Authority Spatial Plan, it is also at odds with the approach of other Authorities within the Arc, many of whom have made appropriate provisions within their Plans for the future growth needs associated. This includes Plan MK and Vale of Aylesbury Local Plan.

[5] Government response to 'Partnering for Prosperity: a new deal for the Cambridge-Milton Keynes–Oxford Arc'

[6] Kit Malthouse Letter Delivering ambitious housing growth in the Cambridge–Milton Keynes–Oxford Corridor dated 26 July 2018

Early Review of the Plan

2.3.18 There remain uncertainties about the level of housing need required in Huntingdonshire going forward however the direction of travel is clear that significant housing growth will be required if the government is to achieve its target of 300,000 homes per annum and 1 million homes in the region by 2050.

2.3.19 There is a clear fragility to the Plan as a result of the reduction in housing supply arising from MM1, and Larkfleet have genuine concerns that the Plan can achieve its planned delivery rates to meet its housing requirement and provide a five-year supply of housing land. Larkfleet consider that the plan is currently unsound in that it is not positively prepared or effective.

2.3.20 If the Inspector is minded to recommend adoption of the Plan, it is considered imperative that to address the fragility of the Plan and address uncertainties regarding longer term housing needs that **an additional main modification committing the Council to an early review of the Plan** is included. The Inspector will be aware that such a mechanism is proposed for inclusion within Plan: MK in recognition of the Oxford Cambridge Growth Arc and to reflect and enable the level of growth foreseen. An early review is also a commitment of the Cambridge City and South Cambridgeshire Local Plans, a view that was taken as the pragmatic approach to addressing uncertainties regarding the housing requirement, as is equally the case in Huntingdonshire. According to the Inspectors Report into the Cambridge City Plan, such a review should be taken '*in the context of the approach to local housing need assessment in the revised NPPF*' (para.33).

2.3.21 It is entirely reasonable that Huntingdonshire could work with the Combined Authority for Cambridgeshire and Peterborough to establish a growth strategy for the region that could inform an early review of the Plan. The principle of an early review has been addressed by the Inspector examining the Vale of Aylesbury Local Plan with the comment that an early review must be read in the context of the statutory requirement for a review every five years (Appendix 2: VALP Examination Discussion Document D5, para.20). Therefore, such a review mechanism, as included within Huntingdonshire's Plan should reflect a maximum 4-year timescale with a draft submission for examination by January 2023 and the option to include a contingency if a draft plan is not submitted within this timescale. Such a contingency could take the form of a reserve site allocation.

2.3.22 We recommend that, if the Inspector is minded to recommend adoption of the Plan, a new main modification is included as follows:

The Council commits to undertaking an early review of the Huntingdonshire Local Plan with the submission of a draft plan for examination, containing strategic policies for the long-term growth of Huntingdonshire, no later than January 2023.

The early review will establish a long-term housing need requirement based on the government's local housing need assessment and will bring the delivery of long-term requirement for transformational growth into a statutory planning policy document.

The parameters and format of the review will also reflect Huntingdonshire's location within government's wider Cambridge-Milton Keynes-Oxford Growth Arc, in the context of any potential growth deal as well as any associated national infrastructure projects and the corridor wide Joint Vision Statement anticipated in Spring/Summer 2019.

The review will also develop and formalise, as appropriate, joint working arrangements with neighbouring authorities within the Peterborough Cambridgeshire Combined Authority Area, which may result in the preparation of a joint strategic plan on a wider geography.

If the review of the Huntingdonshire Local Plan is not submitted for examination by January 2022, the Council commits to either a) bringing forward a reserve site allocation b) working proactively with the promoters of sites which will help to deliver the Council and government's longer-term growth ambitions.

2.3.23 In addition to the above additional modification, it is clear that Wyton Airfield is not a deliverable site at this time and cannot be included as a positive allocation in the Plan. As a result, **it is inappropriate to include the Note on Wyton Airfield in the Local Plan (at para 4.21 onwards)**. This not only unfairly prejudices the ability of other sites to come forward but appears as a fait accompli for Wyton without the Council having been through the process of examining and assessing potential sites as part of the early review process. **It is by proxy applying reserve site status to Wyton without any evidence to support this or thorough testing of other appropriate locations for reserve sites.**

2.3.24 Larkfleet do not support this principle, however, if the Inspector is forcibly minded to retain a note on potential reserve sites, it is important that other alternatives are also considered.

Sibson Garden Village as Strategic Reserve Site

Sustainability Appraisal

2.3.25 RPS and No5 Chambers have previously made representations as to the way Sibson has been assessed as part of the Council's Sustainability Appraisal process. Once Wyton was found to be undeliverable and removed from the Plan, the Council undertook, behind closed doors and without consultation or assessment of reasonable alternatives in a transparent way, to settle on an alternative growth strategy that principally accommodated more growth at Alconbury instead of a replacement SEL. This was a fundamental shift away from the Council's original preferred growth strategy to accommodate 3 SELs.

2.3.26 The Council have sought to retrospectively justify their approach within EXAM/03 -Sustainability Appraisal Explanatory Note (SAEN), within which it is accepted that *'it would have been more helpful if the Final Sustainability Appraisal had explained the process that was undertaken in relation to the assessment of alternative options'*. In reality, the process the Council claims to have gone through was entirely unclear and entirely alien to the idea of SEA being a systematic and transparent process undertaken during the preparation of the Plan.

2.3.27 PPG on SEA makes clear that the SA itself should outline the reasons the alternatives were selected, the reasons the rejected options were not taken forward and the reasons for selecting the preferred approach in the light of the alternatives. Para18 makes clear that the SA should '*provide conclusions on the overall sustainability of the different alternatives including those selected as the preferred approach in the Local Plan'*. Reasonable alternatives should be '*all reasonable alternatives'*.

2.3.28 Larkfleet maintain that the Sustainability Appraisal process is not legally compliant and consider that the process the Council have been through could be subject to legal challenge. A copy of the legal representations submitted as part of the EIP, submitted by Thea Osmund-Smith of No5

Chambers is included within Appendix 2. There is nothing within the Modifications to the Sustainability Appraisal that address these fundamental concerns.

Sibson as a Reasonable Alternative

2.3.29 Despite supporting Sibson as a potential Garden Village through an Expression of Interest to the government's garden village prospectus in 2016, the Council revealed within EXAM3 – SAEN that they did not consider Sibson to be a reasonable alternative. Legal representations made by Chris Young QC at a subsequent Sustainability Appraisal hearing session on 26 September opined that this was Wednesbury Unreasonable.

2.3.30 Indeed, it is difficult to see how Sibson cannot feature as a reasonable alternative to meet the growth requirements of the Plan. The Council in its SAEN point to '*insufficient evidence on the viability and achievability of the infrastructure required to support the development, particularly the new junction onto the A1 to provide access to the site'*, albeit they provide no evidence to discount the '*substantial supporting information'* that they acknowledge was submitted and accompanies the Sibson submission and representation. Their assessment that Sibson is not a reasonable alternative is also contrary to their own HELAA (December 2017 at page 10-13) which was generally positive about the site and within which whilst acknowledging a Transport Assessment would be required to deliver safe appropriate access can be provided, still registered the site as suitable, available and achievable.

2.3.31 In reality the evidence of Sibson as a reasonable alternative is regarded as undeniable when compared with other sites either included within the Plan or held in reserve proxy (Wyton). The garden village bid was accompanied by a full cost plan that demonstrated viability of the scheme and there is no evidence to demonstrate, as is suggested by the Council's SAEN, that access can't be achieved from the A1. In contrast. a deliverable all movements access solution onto has been devised with Highways England and is included within **Appendix 3** to demonstrate deliverability.

2.3.32 In reality, Sibson is ideally placed to deliver on the District's housing and infrastructure requirements, both now and going forward. It is a site commended by the government, in single ownership and will directly address some of the key challenges in Huntingdonshire / Cambridgeshire by:

- Delivering a truly sustainable large-scale new garden settlement;
- Improving key transport infrastructure and delivering genuine travel choice for a new community;
- Delivering a significant proportion of the District's housing need either now or in the future;
- Providing a for a range of housing, including those needed for older people;
- Making a substantial commitment to delivering high levels of housing that is truly affordable;
- Providing a genuinely self-sufficient community with a range of services necessary to sustain it;
- Being free from environmental constraint and with opportunities to deliver substantial areas of open space, landscape improvements and biodiversity enhancements

2.3.33 Importantly, Sibson will fulfil a need going forward. The market towns in Huntingdonshire are becoming saturated and will struggle to accommodate significant levels of additional growth in a district. Growth requirements in Huntingdonshire remains high yet the district is short of large settlements that can absorb high levels of growth. It is seen as inevitable that large standalone sites will be needed to deal with future growth and provide genuine market choice. Larkfleet Homes are currently preparing a planning application at the site that will deliver a truly sustainable Garden Village. Our latest Illustrative Masterplan (**Appendix 4**) gives an overview of the progress that has been made in developing the site.

APPENDIX 1 – SPRU REPRESENTATION

Strategic Planning & Research Unit

For and on behalf of
Larkfleet Homes

Huntingdonshire Local Plan 2018
Response to main Modifications

Prepared by
Strategic Planning Research Unit
DLP Planning Ltd
Sheffield

January 2019

Prepared by:	Roland G Bolton
Approved by:	Roland G Bolton
Date:	January 2019

Strategic Planning Research Unit

V1 Velocity Building
Ground Floor
Tenter Street
Sheffield
S1 4BY

Tel: 01142 289190

Broad Quay House (5th Floor)
Prince Street
Bristol
BS1 4DJ

Tel: 01179 058850

4 Abbey Court
Fraser Road
Priory Business Park
Bedford
MK44 3WH

Tel: 01234 832740

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1.0 PROPOSED MODIFICATION 1

1.1 This objection is to proposed modification 1 and contains 2 elements:

a. That the supply from the 1st April 2018 to 31st March 2036 of estimated at 16,647 dwellings is sound

b. That a supply of 105% of OAN is a sufficient buffer to secure the flexibility required by paragraph 2014 of the Framework 2012 to meet the test of soundness on the basis of:

i. The OAN requires a number of assumptions to to meet in order for it not to limit economic growth and there is no flexibility should these changes not be forthcoming resulting in a higher population to meet economic growth.

ii. The assumed rates of lead in terms and delivery remain optimistic and there is no flexibility should these not be achieved.

a) Land supply is sound

1.2 SPRU's assessment of delivery rates and lead-in times suggest the Council are only able to demonstrate a plan period supply of 14,604 dwellings to 2036.

1.3 The changes suggested in the inspectors note on the main modifications is broadly supported, however the Summary of the housing trajectory that leads to the conclusion that there is an overall supply of 21068 (2011 – 32036) or 16647 2018/19 to 2035/6 is based upon the proposition that once these locations reach the maximum rate of delivery then they will deliver at the maximum level suggest by the council for the remainder of the plan period.

1.4 For **SEL1.1, SEL1.2 and HU1** this means from 2022 onwards these sites will deliver at the maximum of 300 dpa for the whole of the plan period. This means an average of 287 dpa. This would result in the location being the fastest delivering strategic location in England. It is a rate that is equivalent of Milton Keynes Broughton (Matter 12 SPRU appendix NLP Start to finish Appendix 1).

1.5 In this case this second highest average rate of completion recorded in England is to be maintained over a much longer build period – not the 7 years recorded for Broughton at Milton Keynes but over 18 years.

1.6 There are clear differences between these allocations and the situation at Milton Keynes most notably the number of likely active parcels as well as the number of developers (SPRU's own research highlighted a total 15 developers being engaged in the delivery of the Eastern Expansion Area (Broughton Gate and Brooklands). The NLP "Start to finish" report (page 15) describes this level of completions being achieved by;

"Serviced parcels with the roads already provided were delivered as part of the Milton Keynes model and house builders are able to proceed straight onto the site and commence delivery. This limited the upfront site works required and boosted annual build rates. Furthermore, there were multiple outlets building-out on different serviced parcels, with monitoring data from Milton Keynes Council suggesting an average of c.12 parcels were active across the build period. This helped to optimise the build rate."

1.7 Clearly selecting a strategy based upon such an unprecedented level of delivery over such a long time period creates considerable risk to the longevity of the plan as there is a significant risk this maximum level will not be maintained from 2022 onwards and indeed even the average of 287 dpa is only marginally lower and carries with it the same

risk.

1.8 In respect of **SEL2** the combined completion rates of a maximum of 200 dpa has again been applied from year 2 of this proposed development resulting in an average rate of delivery of from 2020/21 for the remainder of the plan period and an average of 192 dpa.

1.9 Again, this is higher than the average rate of delivery of sites of this nature (171 dpa) as recorded by NLP. This is being forecast to be achieved in the same market area as achieving the very high levels at the combined location of SEL1.1, SEL1.2 and HU1.

1.10 In effect the "maximum" level recommended by the inspector is actually being translated of all practical purposes as an average for both sites. This we would suggests continues to overestimate the likely contribution of these sites to meeting the housing requirement in the plan period.

b) The level of proposed allocations provides sufficient flexibility

1.11 The Framework 2012 states:

"Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change"

1.12 Paragraph 21 of the Framework 2012 highlights the impact of lack of housing on the economy and states that:

Policies should be flexible enough to accommodate needs not anticipated in the plan and to allow a rapid response to changes in economic circumstances;

1.13 In reaching a conclusion as to the soundness of the plan, regard needs to be made to the plans flexibility to cope with change.

1.14 While a decrease in the level of housing might be accommodated by a slow down in the rate of development on some sites or even a delay in some sites coming forward an increase in demand wold be extremely difficult to accommodate because:

a. The assumptions regarding lead in times are very aspirational in many cases

b. The rates of delivery as discussed above are also at the higher end of what has been delivered in the past in areas of high demand.

i) Clear and present risks – under delivery against assumptions

1.15 The selection of aspirational lead in times and rates of delivery either above average or at a level only experienced once before in the country there is a considerable risk of the plan failing to meet the proposed housing requirement.

1.16 Additional provision within the two strategic locations will not assist in the case of underdeliver from one or both of these allocations as the issue will be one of the practicalities and/or marketability of the location.

1.17 Even if these sites delivered at the average rate of 171 and there was no slippage the overall level of delivery would reduce by some 2,370 dwellings resulting in 18,335 dwellings and so would not deliver the chosen housing requirement.

1.18 The use of a national average is a very logical and sound basis on which to test the flexibility of a plan. The proposed approach in this plan clearly fails the test of flexibility in this respect.

ii) Clear and present risks – the housing requirement is an under estimation of future

need

1.19 The standard methodology (2014) produces a requirement of 993 dpa or 28,435 dwellings in total.

1.20 This methodology will only result in plans making provision for 266,000 dpa compared to the governments objective of 300,000 dpa.

1.21 It is extremely unlikely given the governments continued commitment to achieving the 300,000 dpa that any reworking of the method would result in a decrease in this projected level of housing as such the plan is incapable of accommodating any meaningful increase in the dwelling requirement.

1.22 In order to reach a conclusion that the proposed housing requirement will not have a negative impact on employment growth a number of the of assumptions which have been incorporated into the council's projections have to come to pass. Their approach to this issue is not a "continue with past trends". In particular the changes that will need to occur for the housing requirement to be balanced with projected employment growth are as follows:

a. Market indicators can be fully addressed by a 5% uplift (compared to published evidence in the NHPAU requiring a 28% uplift the LPEG method suggesting a 25% uplift and the standard method resulting in a 30% uplift).

b. There is clearly a risk of extracting employment growth out of an integrated model and reworking the housing requirement as highlighted by the warning the EEFM web site and highlighted in our earlier submissions.

c. In this particular case there appears to be an obvious mismatch between employment growth of 9.1% being supported by just a 3.9% increase in the working population. This highlights that the approach taken by the councils' consultants of matching employment to population requiring higher activity rates throughout the population.

d. This means that 7,614 new jobs forecast will be filled by changes to current levels of unemployment, commuting, and the economic activity rate of the existing population. If these changes do not occur, or indeed occur as modelled by the SPRU Regulation 19 then there will be a mismatch of employment growth and the economy may be restrained contrary to the Framework 2012.

1.23 In testing for soundness in terms of flexibility, it is not required that any of the above will occur but if there is a reasonable prospect that they might occur, then the flexibility required by paragraph 14 of the Framework 2012 means that the plan could accommodate such a change. The plan as proposed to be amended clearly could not accommodate any of the above changes that increase the level of housing need, it is therefore presently unsound.

1.24 A greater range of sites would address these issues, whether they be allocated for development within the plan or identified as "Strategic Reserves" as is the practice in some other growth areas such as Milton Keynes. In respect of the level of flexibility that should be accommodate, we are of the opinion this should be at least 10% as this would at least go some way to provide sufficient albeit short term flexibility.

BEDFORD
4 Abbey Court, Fraser Road
Priory Business Park, Bedford. MK44 3WH
bedford@dlpconsultants.co.uk
01234 832 740

BRISTOL
Broad Quay House (5th Floor)
Prince Street, Bristol. BS1 4DJ
bristol@dlpconsultants.co.uk
01179 058 850

EAST MIDLANDS
1 East Circus Street, Nottingham
NG1 5AF
nottingham@dlpconsultants.co.uk
01158 966 622

LEEDS
Princes Exchange
Princes Square, Leeds. LS1 4HY
leeds@dlpconsultants.co.uk
01132 805 808

LONDON
The Green House, 41-42 Clerkenwell Green
London. EC1R 0DU
london@dlpconsultants.co.uk
020 3761 5390

MILTON KEYNES
Midsummer Court, 314 Midsummer Boulevard
Milton Keynes. MK9 2UB
miltonkeynes@dlpconsultants.co.uk
01908 440 015

SHEFFIELD
Ground Floor, V1 Velocity Village
Tenter Street, Sheffield. S1 4BY
sheffield@dlpconsultants.co.uk
0114 228 9190

RUGBY
18 Regent Place, Rugby, Warwickshire
CV21 2PN
rugby.enquiries@dlpconsultants.co.uk
01788 562 233

COMPANY ESTABLISHED 1991

RTPI Chartered Town Planner

APPENDIX 2 – SA OPINION, NO5 CHAMBERS

Re: HUNTINGDONSHIRE LOCAL PLAN TO 2035
SUSTAINABILITY APPRAISAL EXPLANATORY NOTE

OPINION

Introduction

1. I am instructed in this matter by Paul Hill, Senior Director of RPS on behalf of Larkfleet Homes ("Larkfleet"). Larkfleet is in control of Sibson Aerodrome ("Sibson") a site that is being promoted as a Garden Village – a new sustainable settlement for up to 2,500 homes and associated infrastructure. Larkfleet is presently working towards the submission of a planning application, and further details have been provided as part of Larkfleet's Matter 6 Hearing Statement.

2. In July 2016, the site was the subject of a submitted expression of interest ("EoI") to the Government by Larkfleet and the Council, but unfortunately, was not selected in the first wave Garden Village bids announced in January 2017. Gavin Barwell MP, Housing and Planning Minister at the time, recognised the potential of the site in his letter to Larkfleet in January 2017 commenting that there was much to commend the proposal in terms of vision and commitment to innovation. The Council's letter of the 3rd January to Larkfleet did not withdraw its support for the site, but made clear that going forward, the Council's expertise would be concentrated on the delivery of its new local plan.

3. I attended the Huntingdonshire Local Plan Examination Hearing into Matter 1 on Tuesday 17 July 2018 at which the Council's Sustainability Appraisal was considered. RPS has previously submitted a hearing statement on behalf of Larkfleet raising concerns about the Final Sustainability Appraisal ("FSA") CORE.07, and those submissions were expanded on at the hearing. At the end of the hearing that day, the Council said that it would provide an

explanatory addendum dealing with the issues that had been raised in respect of the FSA insofar as possible. I made representations on behalf of Larkfleet urging caution in respect of inappropriate ex post facto justification for the promoted growth distribution strategy.

4. A Sustainability Appraisal Explanatory Note ("SAEN") has now been produced (EXAM/03) and this Opinion deals principally with the issue of Distribution of Growth at part 3 of the SAEN.

5. In summary, the SAEN does amount to inappropriate ex post facto justification of the adopted strategy for reasons that are expanded on below. The SAEN itself acknowledges at para 3.19 that:

   "It is accepted that it would have been more helpful if the Final Sustainability Appraisal had explained the process that was undertaken in relation to the assessment of these option."

6. The report then goes on to provide "clarification" without any apparent evidential basis other than Appendix 2 "Summary Table of Site Sustainability Appraisals" which is alleged to "summarise" the sustainability appraisal of the sites included. It does not, and in fact misrepresents the site specific SA of Sibson Aerodrome. Accordingly there remain very real concerns about the Council's FSA and the document's compliance with both statute and national planning practice guidance.

Opinion

7. Initial SA work was consulted on between February and March 2012 and a SA Report was prepared in late 2012. Three potential strategic expansion locations ("SEL") were pursued at that time, and formed a key component of **all three** proposed growth distribution options, that is:

(i) The High Concentration option;

(ii) Growth in Large Settlements option; and

(iii) The Dispersed Option.

8. There was not a growth option considered that didn't include three SELs. The strategy was inevitably a response to encouragement by the NPPF (2012) para 52 that:

"The supply of new homes can sometimes be best achieved through planning for larger scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities."

9. It is a sound strategy, and one with which Larkfleet agrees. Indeed a lot of the sustainability criteria were well met by providing growth at three SELs and focusing growth in larger settlements; see in particular pp.157-158 of the FSA - reducing the need to travel, air pollution, and promotion of the quiet rural character of the district for example. The distribution of growth that was rejected as being the least sustainable option was the Dispersed option; see FSA, p.163.

10. It will be understood that as one of the three SELs, Wyton Airfield was a key component of all three options; see FSA p.152. However, crucially, as the SAEN acknowledges at para 3.12, in early 2017, Wyton Airfield was removed as a SEL. The loss of the SEL (4500 homes) meant that the approach to the distribution of development therefore had to change to respond to the hole that Wyton left.

11. That change, and what is now proposed is explained in on at page xxiv of the FSA. The following points are salient:

(i) Wyton was removed as a result of the Strategic Transport Study that demonstrated the SEL was not deliverable at that time.

(ii) Instead, there were to be a series of allocations in the three villages of Alconbury, Bluntisham and Great Staughton. They were proposed to be identified as an additional tier in the settlement hierarchy to be known as "local service centres. It was regarded as "a significant change" from the approach that included 3 SEL's and growth in larger settlements.

12. On page xxvi the FSA comments that there will be some sustainability impacts because of the addition of local service centres:

"The addition of local service centres somewhat reduces the sustainability of the policy due to doing less overall to reduce the need to travel. However local service centres will help support the rural economy and will help meet local housing needs."

13. Fundamentally, the issue is this - there was a decision made following the withdrawal of Wyton Airfield that growth had to be distributed differently. The strategy that has now been settled on, without any assessment or appraisal of reasonable alternatives, is to:

a) Accommodate significantly more development at Alconbury;
b) Direct significantly more growth to the key service centres (1540 as opposed to 973); and
c) To add a new tier in the hierarchy of Local service centres.

14. It is acknowledged that at the time the distribution of growth was being amended that the OAN had been reduced to 20,100. However, it is also plain that the removal of Wyton SEL from the proposed distribution left a shortfall in housing land that had to be made up. The loss of the SEL was not only the

single most significant factor in the need to identify further land for housing, it also meant the new strategy settled on by the Council arising from that loss, was in fact less sustainable as acknowledged at p. xxvi of the FSA.

15. That fact in itself should have prompted the Council to consider whether there original preferred strategy - growth in larger settlements including three SELs – should be retained by the identification of a further SEL to replace Wyton. It didn't, and there is no evidence produced in the SAEN that it did. Further, given that the proposed strategy including Wyton was no longer deliverable, it was absolutely incumbent on the Council to properly revisit the issue of distribution of growth and consider the reasonable alternatives for delivering the growth required as against the proposed approach. There is no evidence that the Council at that stage or any stage thereafter considered **any** reasonable alternatives before settling on the final distribution of growth that is now set out in the Plan.

16. The Council points to 4 factors that are said to have influenced the changes in the preparation of the 'Final Distribution of Growth Option'; see SAEN at para. 3.15. The first two bullets have been dealt with above, but it is surprising that the Council identifies at the third bullet point the publication of the White Paper in February 2017 'Fixing our broken housing market' as influencing the change. It is said that the White Paper emphasised the re-use of previously developed land and support for small and medium sized sites and thriving rural communities. If that was a genuine influence on the change to the distribution of growth, one would expect to see some reference to it in the FSA. In truth, the NPPF sets out the policies that consider and support both of those issues. They were not new.

17. There are in fact only two references to the White Paper; see paras. 621, and 7.38. What is said about it is this:

"The White Paper 'Fixing our broken housing market' (February 2017) set out

the government's intentions to consult on options for introducing a standardised approach to assessing housing requirements. This has introduced a level of uncertainty into identifying the housing target for the Local Plan consultation draft 2017. Future consideration will be given to application of any nationally introduced methodology."

18. There is no hint at all that the Council in its consideration of the final distribution of growth (rather than the level of growth) had any regard to the White Paper and any emphasis on or support that it might provide for growth in rural communities. Another two factors are mentioned at para. 3.17 of the SAEN for which there is no evidential basis at all. The first is reference to the consultation proposals 'Planning for the right homes in the right places.' The consultation, which was published in September 2017 and is listed as an "influencing factor" is not mentioned in the FSA at all. The same goes for the "concern" on over-reliance on the strategic expansion locations. There is simply no evidence that if such concern was expressed, the Council had regard to it in proposing the final distribution of growth.

19. Nowhere the FSA is there any mention that there was concern over the sustainability of the three SEL approach. It was in fact a fundamental component of all three growth distribution options considered by the Council. Nowhere in the FSA is there any analysis or conclusion that three SELs are no longer considered to be the most sustainable approach to the distribution of growth. The evidence simply is not there, and has not been provided in the SAEN. There are no memos, notes or resolutions by the Council that have been provided to support the process that is alleged to have been undertaken. The SAEN is just the sort of ex post facto justification that is entirely inappropriate in terms of a process that is meant to be systematic, transparent, and thorough in order to achieve sustainable development.

20. It is also worth mentioning that the final factor noted at para. 3.15 is that Sibson Garden Village was unsuccessful in its bid to be part of the vanguard group of locally-led Garden Villages. How that fact influenced the final distribution of growth in entirely unclear:

    (i) Sibson was not a SEL identified in the original proposed distribution;
    (ii) The Council did not consider it as a reasonable alternative for Wyton, or any other site for that matter;
    (iii) The FSA makes no reference within the body of the text to Sibson at all.

21. While it is a matter of fact, as explained above, that Sibson was not selected in the first wave of the successful Garden Village bids, there is no conceivable way that could have impacted on the Council's final distribution of growth option. Again, if it were a significant factor, the FSA would make some reference to it.

22. The Council accepts at para. 3.19 that it would have been helpful if the FSA set out the process that is now sought to be explained by the SAEN within the FSA itself. It is not "helpful" it is absolutely necessary. It is remarkable that the Council now seeks to set out three entirely new options in the SAEN when not only is there absolutely no reference to, or analysis of those options in the FSA at all, but in proposing them now, the Council has provided no evidence whatsoever to demonstrate they were considered at an earlier, and appropriate stage in the process. Not even the scantest documentary evidence has been provided in support – the paper trail is non-existent.

23. Even now, there is no detailed sustainability appraisal of the options as would expected, and which does occur at places in the FSA in line with the stated methodology; the Council has not attempted to produce one.

24. In respect of Option 1, the Council argues that consideration was given to other new settlement proposals. Unsurprisingly given Larkfleet's representations on this particular matter, Sibson attracts a special mention, and it is said that "*there was insufficient evidence on the viability and achievability of the infrastructure required to support the development, particularly the new junction onto the A1 need to provide access to the site. So it was not considered to be a reasonable alternative.*"

25. Given that the Council previously supported Larkfleet's submission of an expression of interest to deliver a Garden Village at Sibson, it is surprising that the Council now considers that there is insufficient evidence to allocate the site. If the highway issue really was a fundamental showstopper, then the Council would not have supported the EoI. Moreover, the HELAA (December 2017) at pp.10-13 is generally positive about the site. It acknowledged that a transport assessment will be required to demonstrate that safe, appropriate access can be provided from Elton Road, and in particular to the A1, but still regarded the site as suitable, achievable, and available. It is therefore wrong to consider that Sibson did not provide a reasonable alternative to the final distribution strategy. Moreover, the "outcome" box featured in Appendix 2 of the SAEN that considers Sibson as undeliverable" is entirely new, and entirely unsubstantiated. It in not an accurate reflection of the HELAA but a further cynical attempt to justify a seriously flawed FSA.

26. The Inspector will be familiar with the PPG on SEA and SA, but in essence SA is a systematic process that must be carried out during the preparation of the plan and inform the plan. Consideration of reasonable alternatives to the proposed approach is the bedrock of the process to ensure that the preferred option is the most sustainable.

27. The Guidance makes clear that the SA itself should outline the reasons the alternatives were selected, the reasons the rejected options were not taken forward and the reasons for selecting the preferred approach in light of the

alternatives. Para. 18 makes clear that the SA should *"provide conclusions on the overall sustainability of the different alternatives including those selected as the preferred approach in the Local Plan."* Reasonable alternatives should be "all reasonable alternatives".

28. In respect of the original distribution of growth, the FSA records that three options were assessed. All included 3 SELs. The approach favoured was the larger settlements option. The FSA sets out a detailed appraisal of why that was the most sustainable option. Once Wyton was no longer regarded as deliverable the strategy had to change. From that point on, a distribution of growth emerged that was not tested against any reasonable alternatives at all. It was tested only against what went before (FSA, p.772) and which no longer represented a reasonable alternative because it could no longer be achieved in the absence of Wyton SEL. There is no evidence at all in the FSA, or indeed the SAEN that any other option was appraised, or systematically assessed before the Council alighted upon a strategy which not only included one less SEL, but also included an additional tier of settlement for growth that is acknowledged to have sustainability disbenefits.

29. Essentially, the distribution now promoted by the Council is far more akin to the Dispersed option of growth that was regarded as the least sustainable option in the initial appraisal of growth options. Moreover, it is worth pointing out that there are significant anomalies in the appraisal of the preferred approach (FSA, pp772-780). The Inspector is asked to look carefully at the results, but for example, the first response to the use of PDL is simply wrong, and is to be compared and contrasted with p.152 of the FSA that shows the opposite assessment is correct. Likewise, it is not clear why the proposed approach should be more positive in terms of grade 3 agricultural land than what was the current approach at that time; see p.773

30. Further, by way of example:

(i) the approach to flood risk on p.774 and 776 is difficult to understand given that distribution of development is now proposed to be more dispersed and includes sites at risk of flooding;

(ii) there has been an effective downgrading of the original proposed distribution when compared with the original assessment; see FSA p.154. That is the case in a number of instances, and without any explanation.

(iii) it is not clear why there should be any difference in terms of crime or access to basic services as a result of more dispersed development; see p.776 .

31. In essence, there is very real concern that the appraisal has been amended quite disingenuously to fit the desired strategy of a more dispersed growth pattern, despite the acknowledged sustainability disbenefits.

Conclusion

32. In conclusion, the SA has not considered reasonable alternatives to the distribution of growth now proposed. There is no evidence that the options set out in the recently submitted SAEN informed the strategy carried forward into the plan, and neither have they been properly appraised in line with the methodology set out in the FSA.

33. The SA therefore fails to comply with section 19(5)(a) and 39(2) of the PCPA 2004, as well and national planning practice guidance.

THEA OSMUND-SMITH
No5 Chambers
9th September 2018

Re: HUNTINGDONSHIRE LOCAL PLAN TO 2035

SUSTAINABILITY APPRAISAL

EXPLANATORY NOTE

OPINION

Paul Hill BA Hons, MA, MRTPI
Senior Director, RPS
[redacted]

Thea Osmund-Smith

No5 CHAMBERS

London • Birmingham • Bristol
[redacted]

APPENDIX 3 – SIBSON DELIVERABLE ACCESS SOLUTION ONTO A1

INDICATIVE

Railway Cottages

Railway Cottages

SB

Landing Stage

Lc

Track

FB

NENE VALLEY RAILWAY

OLD GREAT NORTH ROAD

Wansford Station

Riverside Cottage

Manor Farm

Manor House

Lay-by

Lay-by

Sibson House

Notes

1. Do not scale this drawing. All dimensions are in metres unless stated otherwise.
2. This drawing has been based upon survey information provided by MK Surveys and Milestone Transport Planning cannot guarantee the accuracy of the data.

Ordnance Survey Licence number: 100057360

Drawing Revisions

Rev:	Drn:	Date:	Details	Chk:
-	PK	--/--/2018	Draft issue	-

Client

Larkfleet Homes

Project

Sibson Aerodrome, Cambridgeshire

Title

Preliminary A1 Junction Proposals - All Movements Junction (Option 2)

MILESTONE TRANSPORT PLANNING
7 Wey Court, Mary Road, Guildford, Surrey, GU1 4QU Tel: 01483 397888
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN Tel: 0191 338 7220
web: www.milestonetp.co.uk

Drawing Number: 17063 / 022

Scale: 1:1000 @ A1

Revision: -

APPENDIX 4 – SIBSON DRAFT ILLUSTRATIVE MASTERPLAN

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Site Boundary

Residential Development (63.7Ha)
Up to 2,250 dwellings @ c35.3dph
(Includes Extra Care facility and c50No. Apartments within the High Street)

ExtraCare Facility
(ExtraCare Facility included within 2,250 dwellings)

Primary Streets (Indicative)

Proposed Lay-By to Old Great North Road

Main Access Points off:
1: Great North Road A1 Underpass
Secondary Access Point off:
2: Elton Road

Village School (2.7Ha)
(Land for a college education campus providing pre-school, primary, junior and senior school facilities)

High Street Local Facilities (2.5Ha)
(Village store/shops, cafe, pharmacy/GP surgery, community/village hall, market square/civic space and up to 50 apartments)

Employment (5Ha)

Proposed Sports Playing Fields (9Ha)

Multifunctional GI (c54Ha 40%)
(includes semi-natural green space (retained vegetation & new habitat creation) amenity space, playing fields, village greens, greenway corridors, children's play areas, nature trail, allotment gardens, community orchards, existing ditch/watercourse and SuDS features)

Existing Ditch/Watercourse

SUDS Features -
Ponds and Swales (Indicative)

Existing Public Rights of Way

Proposed Footpath/Cycleway

Existing Vegetation to be Retained

Tree planting - Avenues, Crescents, Greenways and Green Gateways

Structure Planting - Community Woodland, Spinneys and Orchards

\\Fpcr-vm-04\projects\7200\7297\LANDS\Plans\7297-L-06C Illustrative Masterplan.indd

Larkfleet Homes
Sibson Garden Village
Cambridgeshire

ILLUSTRATIVE MASTERPLAN

1:5,000@A2
24 January 2019 MST / JJ
7297-L-06 rev **C**

fpcr
masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

Family or Company Name: Linden Homes Strategic Land
Agent: Pegasus Group (Roberts, Jamie)
PMM: MM1

Comment

Agent	Mr Jamie Roberts (1032205)
Email Address	[redacted]
Company / Organisation	Pegasus Group
Address	[redacted]
Consultee	Linden Homes Strategic Land (1140444)
Company / Organisation	Linden Homes Strategic Land
Address	[redacted]
Event Name	Proposed Main Modifications 2018
Comment by	Linden Homes Strategic Land (Linden Homes Strategic Land - 1140444)
Comment ID	PMM2018:27
Response Date	25/01/19 16:23
Consultation Point	Proposed Main Modification 1 (View)
Status	Processed
Submission Type	Web
Version	0.5
Files	Representations - Full Text

Please tell us whether you support or object to this proposed main modification. Please note: **Support:** if you select support you will be stating that you think this proposed main modification is both **sound** and **legally compliant** . **Object:** if you select object you will be stating that you think this proposed main modification is either **unsound** and/ or is **not legally compliant** .

Do you	Object
Do you consider this proposed main modification to be sound?	Not Sound

It is important to understand how you think this proposed main modification is not sound. Please refer to the 'Proposed Submission Representations Advice Note' for more information about the options here. Please tick all that apply.

Do you consider this proposed main modification is not sound because it is not...	.	Justified
	.	Effective

Please enter your representation here. You should say why you either support this proposed main modification or why you think it is not sound and/ or not legally compliant.

Please note: There are no limits on the length of representations but please be as concise as possible, including only that which is necessary to explain your representation. You can support your representation with supporting documents if you wish (see below) but please include clear references and reasoning as to why any attachments support your representation.

Note: Any representations that rely entirely on supporting documents and state 'See attached report' or similar for this question will not be accepted.

Please enter your representation here.

In previous representations, Linden Homes raised concern that the housing trajectory was not effective and not positively prepared, with the Plan relying upon very high rates of delivery at Strategic Expansion Locations which were considered unrealistic. Linden Homes welcomes the reduction in anticipated delivery rates at the Strategic Expansion Locations (also set out within Main Modifications 15, 16, 17 and 15). Paragraph 154 of the Framework requires that Local Plans are aspirational but realistic. The proposed delivery rates are still optimistic and are reliant upon factors including favourable market conditions. The modifications do not overcome Linden Homes' wider concerns about the Plan strategy and the sustainability of the approach (including the limited apportionment of growth to the town of Huntingdon). Nonetheless, they represent a more realistic basis for the Huntingdonshire Local Plan and are consistent with delivery rates for similar-scale schemes in other authorities' Local Plans. To compensate for the reduction in the number of units proposed to come forward at the SELs, Main Modification 1 introduces additional sources of supply, including windfall, exception sites, and prior approvals. Paragraph 48 of the Framework explains that windfall allowances can count towards housing land supply where there is 'compelling evidence' to do so. It is recognised that the Council has prepared a paper (EXAM/41) which explains why this source of supply can be included. We are concerned about the inclusion of prior approvals at a steady and continuous rate of 20 dwellings per annum. The ability to deliver housing through prior approvals depends upon there being a supply of suitable existing buildings for conversion. For example, these may be redundant or dilapidated office buildings, or redundant agricultural barns of a construction suitable for conversion. As opportunities for prior approval are taken, the supply of suitable buildings will naturally reduce. As such, it is considered that a reduced rate of prior approvals should be allowed for later in the Plan period. In a similar way, rural exception sites typically come forward in response to specific opportunities. These might be where a parish has identified a specific housing need, and where there is a landowner willing to bring land forward for this purpose. For these sources of supply, it is therefore considered that the potential contribution towards the overall housing land supply may be somewhat less than is envisaged through the modifications. The limitations to these sources of supply, coupled with the overall reduction in delivery anticipated at the SELs, could have implications for the Council's ability to maintain a rolling five year supply of housing land, and to meet the requirements of the Housing Delivery Test. Consequently, the Local Plan should offer greater flexibility in its housing land supply to compensate to ensure that it is effective. Linden Homes consider that allocation of land at Lodge Farm offers this flexibility, but moreover presents the opportunity to deliver sustainable housing development, well-related to the edge of Huntingdon and consistent with the Local Plan's spatial strategy.

Supporting documents

If you would like you can support your representation with supporting documents. Please provide a description for any documents you upload and clearly reference them in your representation.

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Representations - Full Text

Please tell us whether changes can be made to address the issue(s) you have identified.

Can the issue(s) you have identified be addressed by making changes to the proposed main modification? Yes

Please tell us what changes would address the issue(s) that you have identified.

You should say why these changes will make this proposed main modification sound and/ or legally compliant.

It would be helpful if you could include revised wording of any policy or text. Please identify additional text by underlining it (**U**) and identifying any text to be deleted by striking it through (**ABC**).

What changes would address the issue(s) that you have identified?

The Local Plan should offer greater flexibility in its housing land supply to compensate to ensure that it is effective. Linden Homes consider that allocation of land at Lodge Farm offers this flexibility, but moreover presents the opportunity to deliver sustainable housing development, well-related to the edge of Huntingdon and consistent with the Local Plan's spatial strategy.

Summary

Object to Main modification 1. Reduction in anticipated delivery rate on the strategic Expansion locations is welcomed, but still too optimistic. The included delivery rate for prior approvals should be reduced as opportunities will reduce over the plan period. Not enough growth attributed to Huntingdon. The Council will not maintain a rolling five-year supply and meet the requirements of the housing delivery test. More flexibility is needed within the housing trajectory. The Lodge Farm site offers this flexibility.

January 2019 | JR | P17-1817

REPRESENTATIONS TO THE HUNTINGDONSHIRE LOCAL PLAN: MAIN MODIFICATIONS

LAND AT LODGE FARM, HUNTINGDON

ON BEHALF OF LINDEN HOMES STRATEGIC LAND

TOWN & COUNTRY PLANNING ACT 1990 (AS AMENDED)
PLANNING AND COMPULSORY PURCHASE ACT 2004

Pegasus Group

[redacted] | W www.pegasusgroup.co.uk

Birmingham | Bracknell | Bristol | Cambridge | Cirencester | East Midlands | Leeds | Liverpool | London | Manchester

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CONTENTS:

1. Introduction

1.1 These representations are made by Pegasus Group on behalf of Linden Homes Strategic Land, which has interests in land at Lodge Farm, Huntingdon.

1.2 The site has been promoted previously through earlier stages of the Local Plan and through verbal and written submissions to the Examination in Public of the Plan.

1.3 For the avoidance of doubt, references to the National Planning Policy Framework (the Framework) within these representations are made in respect of the 2012 version of the document.

2. Proposed Modification 1

2.1 In previous representations, Linden Homes raised concern that the housing trajectory was not effective and not positively prepared, with the Plan relying upon very high rates of delivery at Strategic Expansion Locations which were considered unrealistic.

2.2 Linden Homes welcomes the reduction in anticipated delivery rates at the Strategic Expansion Locations (also set out within Main Modifications 15, 16, 17 and 15). Paragraph 154 of the Framework requires that Local Plans are aspirational but realistic. The proposed delivery rates are still optimistic and are reliant upon factors including favourable market conditions. The modifications do not overcome Linden Homes' wider concerns about the Plan strategy and the sustainability of the approach (including the limited apportionment of growth to the town of Huntingdon). Nonetheless, they represent a more realistic basis for the Huntingdonshire Local Plan and are consistent with delivery rates for similar-scale schemes in other authorities' Local Plans.

2.3 To compensate for the reduction in the number of units proposed to come forward at the SELs, Main Modification 1 introduces additional sources of supply, including windfall, exception sites, and prior approvals. Paragraph 48 of the Framework explains that windfall allowances can count towards housing land supply where there is 'compelling evidence' to do so. It is recognised that the Council has prepared a paper (EXAM/41) which explains why this source of supply can be included.

2.4 We are concerned about the inclusion of prior approvals at a steady and continuous rate of 20 dwellings per annum. The ability to deliver housing through prior approvals depends upon there being a supply of suitable existing buildings for conversion. For example, these may be redundant or dilapidated office buildings, or redundant agricultural barns of a construction suitable for conversion. As opportunities for prior approval are taken, the supply of suitable buildings will naturally reduce. As such, it is considered that a reduced rate of prior approvals should be allowed for later in the Plan period.

2.5 In a similar way, rural exception sites typically come forward in response to specific opportunities. These might be where a parish has identified a specific housing need, and where there is a landowner willing to bring land forward for this purpose.

2.6 For these sources of supply, it is therefore considered that the potential contribution towards the overall housing land supply may be somewhat less than is envisaged through the modifications.

2.7 The limitations to these sources of supply, coupled with the overall reduction in delivery anticipated at the SELs, could have implications for the Council's ability to maintain a rolling five year supply of housing land, and to meet the requirements of the Housing Delivery Test. Consequently, the Local Plan should offer greater flexibility in its housing land supply to compensate to ensure that it is effective. Linden Homes consider that allocation of land at Lodge Farm offers this flexibility, but moreover presents the opportunity to deliver sustainable housing development, well-related to the edge of Huntingdon and consistent with the Local Plan's spatial strategy.

3. Proposed Modification 7

3.1 The deletion of the Local Service Centre designation (and associated allocations) reduces the flexibility of the plan, by limiting the opportunities for development to come forward at three villages. As explained in our response to Proposed Modification 1, additional flexibility should be allowed for within the Local Plan to ensure it is effective, with land at Lodge Farm being an appropriate option for allocation.

Family or Company Name: Linden Homes Strategic Land
Agent: Pegasus Group (Roberts, Jamie)
PMM: MM7

Comment

Agent	Mr Jamie Roberts (1032205)
Email Address	[redacted]
Company / Organisation	Pegasus Group
Address	[redacted]
Consultee	Linden Homes Strategic Land (1140444)
Company / Organisation	Linden Homes Strategic Land
Address	[redacted]
Event Name	Proposed Main Modifications 2018
Comment by	Linden Homes Strategic Land (Linden Homes Strategic Land - 1140444)
Comment ID	PMM2018:28
Response Date	25/01/19 16:23
Consultation Point	Proposed Main Modification 7 (View)
Status	Processed
Submission Type	Web
Version	0.5
Files	Representations - Full Text (1)

Please tell us whether you support or object to this proposed main modification. Please note: **Support:** if you select support you will be stating that you think this proposed main modification is both **sound** and **legally compliant** . **Object:** if you select object you will be stating that you think this proposed main modification is either **unsound** and/ or is **not legally compliant** .

Do you	Object
Do you consider this proposed main modification to be sound?	Not Sound

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Do you consider this proposed main modification is not sound because it is not... . Effective

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Note: Any representations that rely entirely on supporting documents and state 'See attached report' or similar for this question will not be accepted.

Please enter your representation here.

The deletion of the Local Service Centre designation (and associated allocations) reduces the flexibility of the plan, by limiting the opportunities for development to come forward at three villages. As explained in our response to Proposed Modification 1, additional flexibility should be allowed for within the Local Plan to ensure it is effective, with land at Lodge Farm being an appropriate option for allocation.

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Representations - Full Text (1)

Please tell us whether changes can be made to address the issue(s) you have identified.

Can the issue(s) you have identified be addressed by making changes to the proposed main modification? Yes

Please tell us what changes would address the issue(s) that you have identified.

You should say why these changes will make this proposed main modification sound and/ or legally compliant.

It would be helpful if you could include revised wording of any policy or text. Please identify additional text by underlining it (**U**) and identifying any text to be deleted by striking it through (**ABC**).

What changes would address the issue(s) that you have identified?

Additional flexibility should be allowed for within the Local Plan to ensure it is effective, with land at Lodge Farm being an appropriate option for allocation.

Summary

Object to Main Modification 7. The deletion of the Local Service Centre designation (and associated allocations) reduces the flexibility of the plan, by limiting the opportunities for development to come forward at three villages. Additional flexibility should be allowedwithin the Local Plan to ensure it is effective, with land at Lodge Farm being an appropriate option for allocation.

Family or Company Name: Lochailort Investments Ltd.
PMM: MM29

Comment

Consultee	Mr James Croucher (1045618)
Email Address	[redacted]
Company / Organisation	Lochailort Investments Ltd
Address	[redacted]
Event Name	Proposed Main Modifications 2018
Comment by	Lochailort Investments Ltd (Mr James Croucher - 1045618)
Comment ID	PMM2018:23
Response Date	23/01/19 15:27
Consultation Point	Proposed Main Modification 29 (View)
Status	Processed
Submission Type	Email
Version	0.6
Files	Murketts MM29 drainage strategy calculations.pdf Murketts MM 29 Sequential test.pdf Murketts MM29 drainage strategy.pdf Murketts MM29 flood risk assessment.pdf Murketts MM29 site specific flood assessment.pdf Murketts Local Plan Main Mods reps 220119.pdf

Please tell us whether you support or object to this proposed main modification. Please note: **Support:** if you select support you will be stating that you think this proposed main modification is both **sound** and **legally compliant** . **Object:** if you select object you will be stating that you think this proposed main modification is either **unsound** and/ or is **not legally compliant** .

Do you	Object
Do you consider this proposed main modification to be sound?	Not Sound

It is important to understand how you think this proposed main modification is not sound. Please refer to the 'Proposed Submission Representations Advice Note' for more information about the options here. Please tick all that apply.

Do you consider this proposed main modification is not sound because it is not...

Please enter your representation here. You should say why you either support this proposed main modification or why you think it is not sound and/ or not legally compliant.

Please note: There are no limits on the length of representations but please be as concise as possible, including only that which is necessary to explain your representation. You can support your representation with supporting documents if you wish (see below) but please include clear references and reasoning as to why any attachments support your representation.

Note: Any representations that rely entirely on supporting documents and state 'See attached report' or similar for this question will not be accepted.

Please enter your representation here.

We do not accept that the deletion of site allocation SI4 (Former Car Showroom, London Road, St Ives) is necessary to make the plan sound and consequently, we object to proposed main modification 29. Flood risk The Environment Agency has constructed modern flood defences which protect a large part of St Ives from flooding, including site SI4. These newly-built defences have been robustly constructed to modern standards and are maintained by the Environment Agency. Consequently, site SI4 should be considered to be in Flood Zone 1, where neither the sequential nor the exception test applies. Having correctly adopted this floor risk classification, the public benefits of the site's regeneration manifestly weigh in substantial favour of its allocation for residential redevelopment. This is a contaminated brownfield site which has lain derelict for ten years, causing harm to the character and appearance of the Conservation Area. Both the current and the previous owners have been approached on several occasions asking whether the site can come forward for redevelopment. Given the unusual site-specific demolition and remediation costs, as well as the constraints posed by the high and medium pressure gas mains crossing the site (which preclude any larger-footprint development), the only viable reuse is for residential development. No other site would realise the substantial public benefits of the site's regeneration and consequently, should the Local Authority consider that the Sequential Test ought to be applied, this is clearly met. We would cite planning permission 18/02239/FUL (Former ATS garage, 22 East Street, St Ives) as a local example of where similar regeneration benefits in a flood-defended location were such that the Sequential Test was met. The Local Planning Authority's correct assessment of the Sequential Test applies equally to site allocation SI4 as it did to the East Street site. In terms of the Exception Test, the enclosed Flood Risk Assessment and separate Drainage Strategy documents have been submitted in support of recent planning application reference 18/02726/FUL on the SI4 site. Both documents have been prepared following extensive liaison with the Environment Agency, who have confirmed (as attached) that both the methodology and the adopted strategy are appropriate. Consequently, the Local Planning Authority can also be confident that the Exception Test has been passed at site SI4. Summary There is no justification or requirement for site allocation SI4 to be deleted in order to make the Plan sound. To the contrary, the public benefits of the site's regeneration for residential development – the only practical and viable reuse – weigh heavily in favour of the site's continued allocation. The enclosed detailed Flood Risk Assessment and Drainage Strategy documents were not before the Inspector when he recommended that site allocation SI4 be deleted, and neither had planning application 18/02726/FUL been submitted. In light of this additional information, the Local Planning Authority is clearly at full liberty to set aside the Inspector's proposed main modification in respect of site allocation SI4, and reinstate the allocation accordingly. We would request this course of action.

Supporting documents

If you would like you can support your representation with supporting documents. Please provide a description for any documents you upload and clearly reference them in your representation.

If you want to refer to a publication that is available elsewhere or that is subject to copyright that you do not control please provide a link to a website where it is available or give a full reference (including author(s), full title and date of publication) in your comment.

By submitting a supporting document you give permission for the council to use it for the purposes of drawing up planning policy for Huntingdonshire and to reproduce the document for such purposes.

Please note: There is no limit to the size of documents that can be uploaded but please only upload relevant documents and consider the use of extracts for long documents.

To upload more than one document first select your first document and upload it, then save your comment using the button at the bottom of the page. You can then select another document to upload.

Murketts MM29 site specific flood assessment.pdf

Please tell us whether changes can be made to address the issue(s) you have identified.

Can the issue(s) you have identified be addressed by making changes to the proposed main modification? Yes

Please tell us what changes would address the issue(s) that you have identified.

You should say why these changes will make this proposed main modification sound and/ or legally compliant.

It would be helpful if you could include revised wording of any policy or text. Please identify additional text by underlining it (**U**) and identifying any text to be deleted by striking it through (**ABC**).

What changes would address the issue(s) that you have identified?

Reinstate proposed allocation SI4 following consideration of the attached detailed flood risk assessment and drainage strategy documents not previously presented.

Summary

Object to Main Modification 29. There is no justification or requirement for site allocation SI4 to be deleted in order to make the Plan sound. To the contrary, the public benefits of the site's regeneration for residential development – the only practical and viable reuse – weigh heavily in favour of the site's continued allocation. The enclosed detailed Flood Risk Assessment and Drainage Strategy documents were not before the Inspector when he recommended that site allocation SI4 be deleted, and neither had planning application 18/02726/FUL been submitted. In light of this additional information, the Local Planning Authority is clearly at full liberty to set aside the Inspector's proposed main modification in respect of site allocation SI4, and reinstate the allocation accordingly. We would request this course of action.

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

Return Period (years)	100
FEH Rainfall Version	1999
Site Location	GB 531400 270500 TL 31400 70500
C (1km)	-0.027
D1 (1km)	0.330
D2 (1km)	0.256
D3 (1km)	0.264
E (1km)	0.319
F (1km)	2.416
Maximum Rainfall (mm/hr)	0
Maximum Time of Concentration (mins)	30
Foul Sewage (l/s/ha)	0.000
Volumetric Runoff Coeff.	0.750
PIMP (%)	100
Add Flow / Climate Change (%)	0
Minimum Backdrop Height (m)	0.000
Maximum Backdrop Height (m)	0.000
Min Design Depth for Optimisation (m)	1.200
Min Vel for Auto Design only (m/s)	1.00
Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm at outfall S (pipe S1.004)

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.286	4-8	0.100

Total Area Contributing (ha) = 0.386

Total Pipe Volume (m^3) = 17.543

Time Area Diagram at outfall S (pipe S5.004)

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.255	4-8	0.055

Total Area Contributing (ha) = 0.310

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Time Area Diagram at outfall S (pipe S5.004)

Total Pipe Volume (m³) = 14.393

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
S1.000	11.039	0.200	55.2	0.034	3.00	0.0	0.600	o	300	Pipe/Conduit	
S1.001	24.284	0.555	43.8	0.046	0.00	0.0	0.600	o	300	Pipe/Conduit	
S1.002	24.284	0.065	375.0	0.045	0.00	0.0	0.600	o	375	Pipe/Conduit	
S2.000	36.569	0.918	39.8	0.153	3.00	0.0	0.600	o	300	Pipe/Conduit	
S3.000	13.394	0.045	300.0	0.029	3.00	0.0	0.600	o	300	Pipe/Conduit	
S2.001	17.451	0.058	300.0	0.016	0.00	0.0	0.600	o	300	Pipe/Conduit	
S4.000	15.087	0.427	35.3	0.013	3.00	0.0	0.600	o	150	Pipe/Conduit	
S2.002	53.932	0.144	375.0	0.045	0.00	0.0	0.600	o	375	Pipe/Conduit	
S1.003	11.134	0.030	375.0	0.005	0.00	0.0	0.600	o	375	Pipe/Conduit	
S1.004	8.283	0.055	150.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.000	0.00	3.09	5.300	0.034	0.0	0.0	0.0	2.12	149.9	0.0
S1.001	0.00	3.26	5.100	0.080	0.0	0.0	0.0	2.38	168.5	0.0
S1.002	0.00	3.69	4.470	0.125	0.0	0.0	0.0	0.93	102.7	0.0
S2.000	0.00	3.24	5.600	0.153	0.0	0.0	0.0	2.50	176.6	0.0
S3.000	0.00	3.25	4.727	0.029	0.0	0.0	0.0	0.90	63.8	0.0
S2.001	0.00	3.57	4.682	0.198	0.0	0.0	0.0	0.90	63.8	0.0
S4.000	0.00	3.15	5.200	0.013	0.0	0.0	0.0	1.70	30.0	0.0
S2.002	0.00	4.54	4.548	0.256	0.0	0.0	0.0	0.93	102.7	0.0
S1.003	0.00	4.74	4.404	0.386	0.0	0.0	0.0	0.93	102.7	0.0
S1.004	0.00	4.90	4.374	0.386	0.0	0.0	0.0	0.82	14.5	0.0

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
S5.000	25.170	0.067	375.0	0.113	3.00	0.0	0.600	o	375	Pipe/Conduit	
S5.001	37.558	0.100	375.0	0.085	0.00	0.0	0.600	o	375	Pipe/Conduit	
S6.000	16.750	0.056	300.0	0.049	3.00	0.0	0.600	o	300	Pipe/Conduit	
S5.002	25.247	0.695	36.3	0.036	0.00	0.0	0.600	o	450	Pipe/Conduit	
S5.003	13.492	0.030	450.0	0.027	0.00	0.0	0.600	o	450	Pipe/Conduit	
S5.004	6.794	0.045	150.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S5.000	0.00	3.45	5.567	0.113	0.0	0.0	0.0	0.93	102.7	0.0
S5.001	0.00	4.12	5.500	0.198	0.0	0.0	0.0	0.93	102.7	0.0
S6.000	0.00	3.31	5.531	0.049	0.0	0.0	0.0	0.90	63.8	0.0
S5.002	0.00	4.25	5.325	0.283	0.0	0.0	0.0	3.38	537.9	0.0
S5.003	0.00	4.49	4.630	0.310	0.0	0.0	0.0	0.95	151.4	0.0
S5.004	0.00	4.62	4.600	0.310	0.0	0.0	0.0	0.82	14.5	0.0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.004	S	6.380	4.319	0.000	0	0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S5.004	S	6.200	4.554	0.000	0	0

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Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs 0	Number of Offline Controls 1	Number of Time/Area Diagrams 0
Number of Online Controls 2	Number of Storage Structures 3	Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	1999
Site Location	GB 531400 270500 TL 31400 70500
C (1km)	-0.027
D1 (1km)	0.330
D2 (1km)	0.256
D3 (1km)	0.264
E (1km)	0.319
F (1km)	2.416
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Storm Duration (mins)	30

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Online Controls for Storm

Complex Manhole: S9, DS/PN: S1.004, Volume (m³): 4.0

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0065-1500-0500-1500
Design Head (m)	0.500
Design Flow (l/s)	1.5
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	65
Invert Level (m)	4.374
Minimum Outlet Pipe Diameter (mm)	100
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.500	1.5	Kick-Flo®	0.336	1.3
Flush-Flo™	0.147	1.5	Mean Flow over Head Range	-	1.3

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.5	1.200	2.2	3.000	3.4	7.000	5.1
0.200	1.5	1.400	2.4	3.500	3.7	7.500	5.3
0.300	1.4	1.600	2.5	4.000	3.9	8.000	5.4
0.400	1.4	1.800	2.7	4.500	4.1	8.500	5.6
0.500	1.5	2.000	2.8	5.000	4.3	9.000	5.8
0.600	1.6	2.200	2.9	5.500	4.5	9.500	5.9
0.800	1.9	2.400	3.1	6.000	4.7		
1.000	2.0	2.600	3.2	6.500	4.9		

Hydro-Brake® Optimum

Unit Reference	MD-SHE-0092-4000-1200-4000
Design Head (m)	1.200
Design Flow (l/s)	4.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes

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Hydro-Brake® Optimum

Diameter (mm) 92
Invert Level (m) 5.074
Minimum Outlet Pipe Diameter (mm) 150
Suggested Manhole Diameter (mm) 1200

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	4.0	Kick-Flo®	0.743	3.2
Flush-Flo™	0.359	4.0	Mean Flow over Head Range	-	3.5

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	2.9	1.200	4.0	3.000	6.1	7.000	9.1
0.200	3.8	1.400	4.3	3.500	6.6	7.500	9.4
0.300	4.0	1.600	4.6	4.000	7.0	8.000	9.7
0.400	4.0	1.800	4.8	4.500	7.4	8.500	10.0
0.500	3.9	2.000	5.1	5.000	7.8	9.000	10.3
0.600	3.8	2.200	5.3	5.500	8.2	9.500	10.6
0.800	3.3	2.400	5.5	6.000	8.5		
1.000	3.7	2.600	5.7	6.500	8.8		

Pump Manhole: S16, DS/PN: S5.004, Volume (m³): 4.2

Invert Level (m) 4.600

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.001	0.0000	2.000	0.0000

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Offline Controls for Storm

Pump Manhole: S16, DS/PN: S5.004, Loop to PN: S1.000

Invert Level (m) 4.600

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.001	2.0000	2.000	2.0000

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Storage Structures for Storm

Cellular Storage Manhole: S3, DS/PN: S1.002

Invert Level (m) 4.470 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	140.0	0.0	1.201	0.0	0.0
1.200	140.0	0.0			

Cellular Storage Manhole: S18, DS/PN: S3.000

Invert Level (m) 4.727 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	180.0	0.0	0.801	0.0	0.0
0.800	180.0	0.0			

Cellular Storage Manhole: S16, DS/PN: S5.004

Invert Level (m) 4.600 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	300.0	0.0	0.801	0.0	0.0
0.800	300.0	0.0			

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 1 Number of Time/Area Diagrams 0
Number of Online Controls 2 Number of Storage Structures 3 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH
FEH Rainfall Version	1999
Site Location	GB 531400 270500 TL 31400 70500
C (1km)	-0.027
D1 (1km)	0.330
D2 (1km)	0.256
D3 (1km)	0.264
E (1km)	0.319
F (1km)	2.416
Cv (Summer)	0.750
Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	150.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S6	60 Summer	1	+0%					5.340
S1.001	S7	60 Summer	1	+0%	100/240 Winter				5.145
S1.002	S3	960 Winter	1	+0%	1/480 Winter				4.867
S2.000	S16	60 Summer	1	+0%					5.656
S3.000	S18	960 Winter	1	+0%	30/240 Winter				4.866
S2.001	S14	960 Winter	1	+0%	30/60 Summer				4.866
S4.000	S20	60 Summer	1	+0%	100/120 Winter				5.219

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S1.000	S6	-0.260	0.000	0.04		4.9	OK	
S1.001	S7	-0.255	0.000	0.05		8.2	OK	
S1.002	S3	0.022	0.000	0.03		2.5	SURCHARGED	
S2.000	S16	-0.244	0.000	0.08		12.9	OK	
S3.000	S18	-0.161	0.000	0.02		1.3	OK	
S2.001	S14	-0.116	0.000	0.03		1.8	OK	
S4.000	S20	-0.131	0.000	0.04		1.1	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S2.002	S15	960 Winter	1	+0%	30/60 Summer				4.866
S1.003	S8	960 Winter	1	+0%	1/240 Summer				4.866
S1.004	S9	960 Winter	1	+0%	1/60 Summer				4.866
S5.000	S13	60 Summer	1	+0%					5.656
S5.001	S14	60 Summer	1	+0%					5.602
S6.000	S15	60 Summer	1	+0%					5.585
S5.002	S15	60 Summer	1	+0%					5.388
S5.003	S16	60 Summer	1	+0%	100/60 Summer				4.785
S5.004	S16	120 Winter	1	+0%	30/60 Summer		1/60 Summer	42	4.681

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S2.002	S15	-0.057	0.000	0.02		2.3	OK	
S1.003	S8	0.087	0.000	0.02		1.6	SURCHARGED	
S1.004	S9	0.341	0.000	0.12		1.5	SURCHARGED	
S5.000	S13	-0.286	0.000	0.11		9.3	OK	
S5.001	S14	-0.273	0.000	0.17		15.4	OK	
S6.000	S15	-0.246	0.000	0.08		4.1	OK	
S5.002	S15	-0.387	0.000	0.05		21.9	OK	
S5.003	S16	-0.295	0.000	0.26		23.9	OK	
S5.004	S16	-0.069	0.000	0.00	2.0	0.0	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 1 Number of Time/Area Diagrams 0
Number of Online Controls 2 Number of Storage Structures 3 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH
FEH Rainfall Version	1999
Site Location	GB 531400 270500 TL 31400 70500
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E (1km)	0.319
F (1km)	2.416
Cv (Summer)	0.750
Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	150.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S6	60 Summer	30	+0%					5.361
S1.001	S7	60 Summer	30	+0%	100/240 Winter				5.175
S1.002	S3	960 Winter	30	+0%	1/480 Winter				5.155
S2.000	S16	60 Summer	30	+0%					5.698
S3.000	S18	960 Winter	30	+0%	30/240 Winter				5.144
S2.001	S14	1440 Winter	30	+0%	30/60 Summer				5.183
S4.000	S20	60 Summer	30	+0%	100/120 Winter				5.234

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S1.000	S6	-0.239	0.000	0.09		10.4	OK	
S1.001	S7	-0.225	0.000	0.14		21.5	OK	
S1.002	S3	0.310	0.000	0.10		9.3	SURCHARGED	
S2.000	S16	-0.202	0.000	0.23		38.0	OK	
S3.000	S18	0.117	0.000	0.19		9.8	SURCHARGED	
S2.001	S14	0.201	0.000	0.09		5.0	SURCHARGED	
S4.000	S20	-0.116	0.000	0.12		3.2	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S2.002	S15	1440 Winter	30	+0%	30/60 Summer				5.194
S1.003	S8	960 Winter	30	+0%	1/240 Summer				5.190
S1.004	S9	1440 Winter	30	+0%	1/60 Summer				5.194
S5.000	S13	60 Summer	30	+0%					5.736
S5.001	S14	60 Summer	30	+0%					5.691
S6.000	S15	60 Summer	30	+0%					5.627
S5.002	S15	60 Summer	30	+0%					5.440
S5.003	S16	60 Summer	30	+0%	100/60 Summer				4.935
S5.004	S16	240 Winter	30	+0%	30/60 Summer		1/60 Summer	42	4.913

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S2.002	S15	0.271	0.000	0.03		2.9	SURCHARGED	
S1.003	S8	0.411	0.000	0.10		6.7	SURCHARGED	
S1.004	S9	0.669	0.000	0.31		3.9	SURCHARGED	
S5.000	S13	-0.206	0.000	0.31		27.6	OK	
S5.001	S14	-0.184	0.000	0.51		47.3	OK	
S6.000	S15	-0.204	0.000	0.22		12.2	OK	
S5.002	S15	-0.334	0.000	0.15		67.5	OK	
S5.003	S16	-0.145	0.000	0.79		73.1	OK	
S5.004	S16	0.163	0.000	0.00	2.0	0.0	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs 0 Number of Offline Controls 1 Number of Time/Area Diagrams 0
Number of Online Controls 2 Number of Storage Structures 3 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH
FEH Rainfall Version	1999
Site Location	GB 531400 270500 TL 31400 70500
C (1km)	-0.027
D1 (1km)	0.330
D2 (1km)	0.256
D3 (1km)	0.264
E (1km)	0.319
F (1km)	2.416
Cv (Summer)	0.750
Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	150.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S1.000	S6	960 Winter	100	+40%					5.528
S1.001	S7	960 Winter	100	+40%	100/240 Winter				5.526
S1.002	S3	960 Winter	100	+40%	1/480 Winter				5.523
S2.000	S16	60 Summer	100	+40%					5.747
S3.000	S18	960 Winter	100	+40%	30/240 Winter				5.488
S2.001	S14	960 Winter	100	+40%	30/60 Summer				5.559
S4.000	S20	960 Winter	100	+40%	100/120 Winter				5.559

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S1.000	S6	-0.072	0.000	0.03		3.5	OK	
S1.001	S7	0.126	0.000	0.04		5.8	SURCHARGED	
S1.002	S3	0.678	0.000	0.17		14.7	SURCHARGED	
S2.000	S16	-0.153	0.000	0.48		78.4	OK	
S3.000	S18	0.461	0.000	0.28		14.7	SURCHARGED	
S2.001	S14	0.577	0.000	0.12		6.5	SURCHARGED	
S4.000	S20	0.209	0.000	0.15		4.3	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
S2.002	S15	960 Winter	100	+40%	30/60 Summer				5.588
S1.003	S8	960 Winter	100	+40%	1/240 Summer				5.603
S1.004	S9	960 Winter	100	+40%	1/60 Summer				5.612
S5.000	S13	60 Summer	100	+40%					5.907
S5.001	S14	60 Summer	100	+40%					5.845
S6.000	S15	60 Summer	100	+40%					5.674
S5.002	S15	60 Summer	100	+40%					5.492
S5.003	S16	480 Winter	100	+40%	100/60 Summer				5.334
S5.004	S16	480 Winter	100	+40%	30/60 Summer		1/60 Summer	42	5.333

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
S2.002	S15	0.665	0.000	0.05		5.2	SURCHARGED	
S1.003	S8	0.824	0.000	0.18		12.8	SURCHARGED	
S1.004	S9	1.088	0.000	0.48		6.1	SURCHARGED	
S5.000	S13	-0.035	0.000	0.62		55.4	OK	
S5.001	S14	-0.030	0.000	1.00		92.7	OK	
S6.000	S15	-0.157	0.000	0.46		25.1	OK	
S5.002	S15	-0.282	0.000	0.30		134.2	OK	
S5.003	S16	0.254	0.000	0.25		23.3	SURCHARGED	
S5.004	S16	0.584	0.000	0.00	2.0	0.0	SURCHARGED	

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Huntingdonshire Local Plan to 2036: Sequential test for flood risk

Contents

1 Introduction

1.1 This report documents the sequential and exception tests for flood risk that have been undertaken to inform site allocations in the Huntingdonshire Local Plan to 2036 Consultation Draft 2017.

2 National Policy requirements

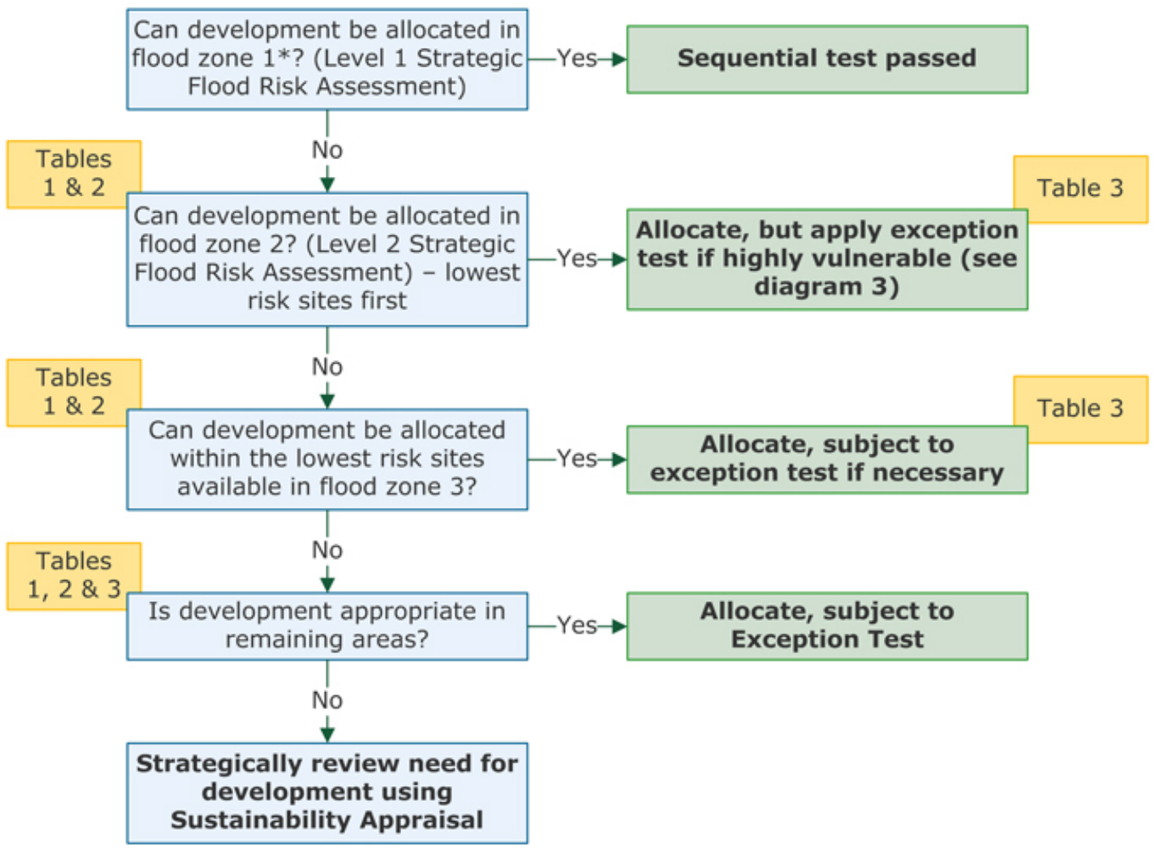
2.1 National Planning Practice Guidance (PPG) sets out requirements for the sequential and exception tests for flood risk as follows:

What is the aim of the Sequential Test for the location of development?

The aim is to steer new development to Flood Zone 1 (areas with a low probability of river or sea flooding). Where there are no reasonably available sites in Flood Zone 1, local planning authorities in their decision making should take into account the flood risk vulnerability of land uses and consider reasonably available sites in Flood Zone 2 (areas with a medium probability of river or sea flooding), applying the Exception Test if required. Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 (areas with a high probability of river or sea flooding) be considered, taking into account the flood risk vulnerability of land uses and applying the Exception Test if required.

Paragraph: 019 Reference ID: 7-019-20140306

PPG Sequential Test process



The Exception Test

What is the Exception Test?

The Exception Test, as set out in paragraph 102 of the Framework, is a method to demonstrate and help ensure that flood risk to people and property will be managed satisfactorily, while allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available.

Essentially, the 2 parts to the Test require proposed development to show that it will provide wider sustainability benefits to the community that outweigh flood risk, and that it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.

Paragraph: 023 Reference ID: 7-023-20140306

How can wider sustainability benefits that outweigh flood risk be demonstrated?

Evidence of wider sustainability benefits to the community should be provided, for instance, through the sustainability appraisal. If a potential site allocation fails to score positively against the aims and objectives of the sustainability appraisal, or is not otherwise capable of demonstrating sustainability benefits, the local planning authority should consider whether the use of planning conditions and/or planning obligations could make it do so. Where this is not possible the Exception Test has not been satisfied and the allocation should not be made.

Paragraph: 024 Reference ID: 7-024-20140306

What needs to be considered so that development will be safe for its lifetime?

Wider safety issues need to be considered as part of the plan preparation. If infrastructure fails then people may not be able to stay in their homes. Flood warnings and evacuation issues therefore need to be considered in design and layout of planned developments. In considering an allocation in a Local Plan a level 2 Strategic Flood Risk Assessment should inform consideration of the second part of the Exception Test. See further information on making development safe from flood risk and on what is considered to be the lifetime of development.

Paragraph: 025 Reference ID: 7-025-20140306

3 Application of Sequential Test

Evidence base

3.1 The application of the sequential and exception test for Local Plan sites is informed by the Huntingdonshire Strategic Flood Risk Assessment Level 1 and 2 (June 2017), including level 2 detailed site assessments for those sites that were considered potential local plan allocations at that time.

Broad approach

3.2 The approach taken to applying the sequential test to individual sites and the overall package of sites in Huntingdonshire is set out in the diagram below. This approach applies the principles set out in the PPG in the following way:

- The PPG sets out the broad approach to applying the sequential test of steering new development to Flood Zone 1. However, the question of whether sites can be allocated within flood zone 1 is complicated by the fact that a single site will often not lie wholly within a single flood zone. The response to dealing with this issue in Huntingdonshire acknowledges that where more than 75% of a site lies within flood zone 1, then the proposed development can probably be sequentially accommodated within that 75%, and the site therefore can meet the sequential test.
- The sequential test is completed by development type.
- The PPG sequential test diagram above infers that the sequential test should only be undertaken until objectively assessed needs are met by the package of sites lying within the lowest flood risk areas. However, the sequential test assessment below considers additional sites over and above those that contribute to meeting the housing requirement, to provide flexibility of supply, and where there are specific regeneration opportunities.
- For the purposes of being comprehensive, the sites assessed include those discounted for non-flooding reasons. This is highlighted where relevant in the column named ‘non-flooding factor’.
- A number of sites that have previously been draft allocations in the Local Plan have now commenced or even completed development, and have been removed from the Local Plan, and are hence not included in this sequential test. Sites which have commenced development sized over 200 dwellings, and which are therefore comprised of development parcels which may not all have full planning permissions are being retained as allocations, and are included in this assessment.

Vulnerability of proposed development

3.3 The flood risk vulnerability of different types of development affects which Flood Zone development may be appropriate in. Using the vulnerability classification shown in Planning Practice Guidance Table 3 referred to in the diagram above, the flood risk vulnerability of the sites tested in the SFRA are shown below.

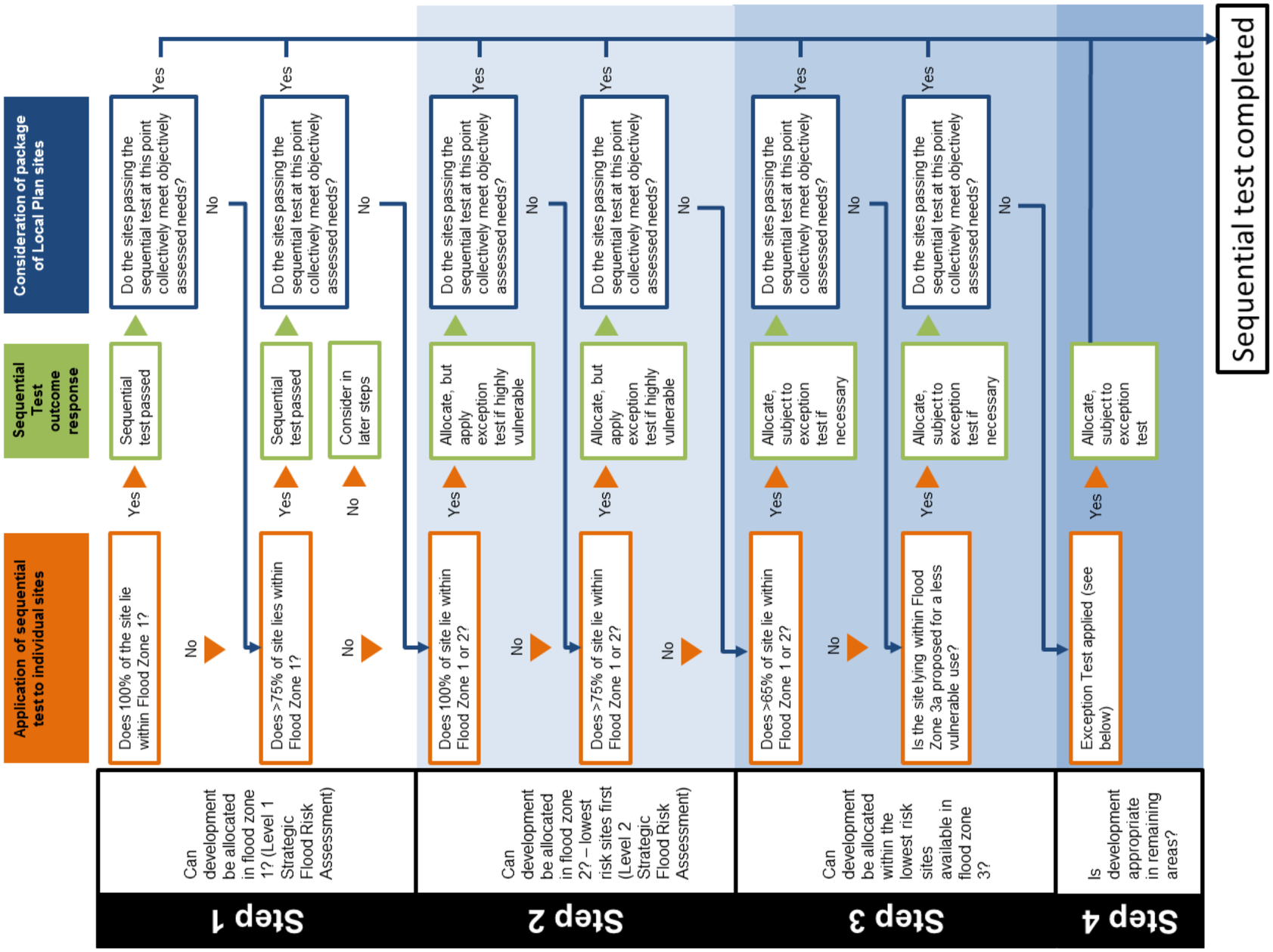
3.4 The sites considered for allocation within the Local Plan are as follows:

Type of development	Number of sites tested	Vulnerability classification
Mixed (including residential)	15	More vulnerable
Residential	49	More vulnerable
Employment	12	Less vulnerable
Retail	1	Less vulnerable
Leisure	1	Less vulnerable
Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms.	1	Water compatible development

3.5 Based upon the above table:

- No sites are classified as highly vulnerable, so, following the PPG sequential test flow chart, the exception test is not required for any site that can be allocated in flood zone 2.
- The site proposed for leisure: Huntingdon Race Course has not been subjected to the sequential test. Most of the site is within the functional floodplain. However, since development is proposed within an existing site for activities that could not reasonably be located anywhere else than at the existing racecourse, it is not considered that there are reasonable alternatives to development at this location. Any proposals will need to be supported by a site specific flood risk assessment appropriate to the risk category of the uses proposed.
- The site proposed for amenity open space: the extension to Hinchingbrooke Country Park, is classed as water compatible, so despite being located within an area of flood risk the sequential and exception test is not required. This site is therefore not considered further within this document.

Application of sequential test in Huntingdonshire



4 Application of the Exception Test

4.1 Following the application of the sequential test, the exception test is undertaken for those sites that require it. The two parts of the exception test are completed using the following evidence sources:

Question	Information source
Will the site provide wider sustainability benefits to the community that outweigh flood risk? (The weighing up sustainability benefits excludes flood risk at this point, since this is already accounted for in the sequential test element, and in the second part of the exception test).	Sustainability Appraisal (SA) Summary in the Housing & Economic Land Availability Assessment
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall?	SFRA level 2 detailed site assessment Site specific flood risk assessment if available

4.2 Based upon a qualitative balancing of the evidence, a conclusion is drawn for each question as to whether the evidence shows that the site passes that part of the exception test. A site must pass both parts of the exception test to be considered suitable for allocation.

5 Summary of findings

5.1 Based upon the flood risk findings set out in appendices 1 and 2, the allocations within the Local Plan are spread across areas of flood risk as follows:

Sequential test for housing and mixed use sites (which include housing)

Sequential test for housing and mixed use sites (which include housing)

Housing requirement (A)	**20,100**
Completions and commitments (B)	**4,409**
Allocations wholly within flood zone 1 (C1.0)	**6,639**
Allocations with 75% of the site within flood zone 1 (C1.1)	**9,378**
100% of site lies within Flood Zone 1 or 2 (C2.0)	**95**
>75% of site lies within Flood Zone 1 or 2 (C2.1)	**651**
>65% of site lies within Flood Zone 1 or 2 (C3.0)	**170**
Less vulnerable sites lying within Flood Zone 3a (C3.1)	**0**
Total (D)	**21,342**
Additional allocations required to meet objectively assessed needs (A) – (D)	**-1,242**
Do the sites passing the sequential test at this point collectively meet objectively assessed needs?	**Yes**

Exception test for housing and mixed use sites

Site name	Will the site provide wider sustainability benefits to the community that outweigh flood risk?	Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall?	Is the site suitable for allocation?
'Tyrell's Marina, Godmanchester'	**Yes**	**Yes**	**Yes**
'West of London Road, St Ives'	**No**	**Yes**	**No**
'West of Cullum Farm, Hemingford Grey'	**No**	**No**	**No**
'Newtown Road, Ramsey'	**Yes**	**No**	**No**
'Former Youth Centre, Priory Road, St Neots'	**Yes**	**Yes**	**Yes**
'Loves Farm Reserved Site, St Neots'	**No**	**Yes**	**N/A**
'Former car showroom, London Road, St Ives'	**Yes**	**Yes**	**Yes**
'Vindis Car Show Room, St Ives'	**No**	**Yes**	**No**
'Ramsey Gateway (High Lode)'	**Yes**	Further information required	**N/A**

Sequential test for Employment sites

Background

5.2 The Employment Land Study 2014 findings suggest that there is limited quantitative demand for additional employment land between 2011 and 2036 beyond that proposed at Alconbury Enterprise Zone. This site, which lies within Alconbury Weald mixed use development, has potential to provide approximately 290,000m^2 of business floorspace (Alconbury Weald is tested for flood risk within the mixed development category since the proposed main uses is housing). However, the Employment Land Study recommends employment development in addition to the delivery of Alconbury Enterprise Campus on a qualitative basis to promote a sustainable pattern of employment growth around the district.

5.3 Sites including employment which are included in the sequential testing as mixed development since they contain housing, include:

Site location	'B' uses total (m^2)
Alconbury Weald	290,000
St Neots Eastern Expansion	77,000
Bearscroft Farm, Godmanchester	15,400
Former RAF Upwood	7,000
Former Dairy Crest, Fenstanton	660
Total	**390,060**

Findings

5.4 The employment sites tested for flood risk pass the sequential test as follows:

Allocations wholly within flood zone 1 (C1.0)	7.41ha
Allocations with 75% of the site within flood zone 1 (C1.1)	5.57ha
Total (D)	**12.98ha**

Sequential test for retail sites

Background

5.5 The Huntingdonshire Retail and Commercial Leisure Needs Assessment 2017 identifies some retail capacity in Huntingdonshire's market towns and Strategic Expansion Locations between 2011 and 2036. A significant amount of retail development is under construction in Huntingdon town centre at Chequers Court (previously a draft allocation). In addition to Chequers Court, a number of sites which include retail, including the Strategic Expansion Locations, are included in the sequential testing as mixed development since they contain housing. These include:

Site location	'A' uses total (m^2)
Alconbury Weald	7,000
St Neots Eastern Expansion	5,400
Ermine St, Huntingdon	1,000
George St, Huntingdon	1,000
Brampton Camp	560
Tyrells Marina, Godmanchester	53
Bearscroft Farm, Godmanchester	950
St Ives West	450
Total	16,413

5.6 It is therefore considered that there is no further need to allocate additional land for retail.

Findings

5.7 Other than mixed development sites which include retail, which are included in the sequential test as mixed and residential uses, only one potential retail site was tested for the sequential test: Huntingdon Fire Station. Given its location in an area of flood risk and the lack of quantitative capacity for additional retail in Huntingdon, this site did not pass the sequential test.

Appendix 1: Sequential Test for housing and mixed sites (which include housing)

Site reference key

Site Reference	Source
Eg CfS2017:012	Consulted upon in the Housing & Economic Land Availability Assessment: October 2017
Eg RA6	Last consulted upon in the Local Plan Consultation Draft 2017 - individual site reference
T/C-HU2	Last consulted upon in the Local Plan Targeted Consultation 2015 - individual site reference
HELAA 2016	Last consulted upon in the Housing & Economic Land Availability Assessment Additional Sites Consultation 2016
ECS+13	Last consulted upon in the Huntingdonshire Environmental Capacity Study: Additional Site Assessments, in 2013
ST3 ECS 13	Last consulted upon in the Stage 3 Huntingdonshire Environmental Capacity Study Consultation

Step 1: Can development be allocated in flood zone 1?

100% of site lies within Flood Zone 1

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	Non-flooding factor	Add into housing figures?	Dwellings to 2036
RA6	Ramsey	94 Great Whyte, Ramsey	0.71	Residential	0%	0%	0%	100%	0	Yes	33
YX1	Yaxley	Askew's Lane, Yaxley	0.5	Residential	0%	0%	0%	100%	0	Yes	9
HU19	Huntingdon	Bearscroft Farm, Godmanchester	45.5	Mixed	0%	0%	0%	100%	Large site started but retained as an allocation	Yes	753
HELAA 2016	Ramsey	Biggin Lane	9.04	Residential	0%	0%	0%	100%	0	Yes	0
CfS2017:094	Huntingdon	California Road, Huntingdon	1.35	Residential	0%	0%	0%	100%	0	Yes	54
FS2/ FS3	Fenstanton	Cambridge Road, Fenstanton	6.9	Residential	0%	0%	0%	100%	0	Yes	120
CfS2017:196	Huntingdon	Corpus Christi Lane, Godmanchester	0.69	Residential	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
SN4	St Neots	Cromwell Road Car Park, St Neots	0.58	Residential	0%	0%	0%	100%	0	Yes	21
SY1	Sawtry	East of Glebe Farm, Sawtry	3.87	Residential	0%	0%	0%	100%	0	Yes	60
HU1	Huntingdon	Ermine Street, Huntingdon	85	Mixed	0%	0%	0%	100%	0	Yes	1450
WB4	Warboys	Fenton Field Farm, Warboys	1.1	Residential	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
RA4	Ramsey	Field Road, Ramsey	5.2	Residential	0%	0%	0%	100%	0	Yes	90
FS1	Fenstanton	Former Dairy Crest Factory, Fenstanton	3.2	Residential	0%	0%	0%	100%	0	Yes	88
T/C-HU2	Huntingdon	Former Forensic Science Laboratory, Huntingdon	2.71	Residential	0%	0%	0%	100%	0	Yes	105
HU6	Huntingdon	George Street, Huntingdon	3.0	Residential	0%	0%	0%	100%	0	Yes	300
HU2	Huntingdon	Hinchingbrooke Health Campus, Huntingdon	22.6	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
WB2	Warboys	Manor Farm Buildings, Warboys	0.61	Residential	0%	0%	0%	100%	0	Yes	10
SM1	Somersham	Newlands, St Ives Rd, Somersham	2.48	Residential	0%	0%	0%	100%	0	Yes	45
SM4	Somersham	North of the Bank, Somersham	2.14	Residential	0%	0%	0%	100%	0	Yes	55
SEL1.2	Huntingdon	RAF Alconbury	84.1	Mixed	0%	0%	0%	100%	0	Yes	1480
RA7	Ramsey	RAF Upwood and Upwood Hill House, Ramsey	25	Residential	0%	0%	0%	100%	0	Yes	450

Appendix 1: Sequential Test for housing and mixed sites (which include housing)

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	Non-flooding factor	Add into housing figures?	Dwellings to 2036
CfS2017:150	Huntingdon	Sapley Park Farm	73	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
SM3	Somersham	Somersham Town Football Ground	1.8	Residential	0%	0%	0%	100%	0	Yes	47
WB3	Warboys	South of Farrier's Way, Warboys	3.63	Residential	0%	0%	0%	100%	0	Yes	74
SI2	St Ives	St Ives football Club	1.4	Residential	0%	0%	0%	100%	0	Yes	30
SM2	Somersham	The Pasture, Somersham	0.9	Residential	0%	0%	0%	100%	0	Yes	20
HU12	Huntingdon	Dorling Way, Brampton	12.25	Residential	0%	0%	0%	100%	0	Yes	150
WB1	Warboys	West of Ramsey Road, Warboys	1.7	Residential	0%	0%	0%	100%	0	Yes	45
SY2	Sawtry	West of St Andrews Way, Sawtry	2.4	Residential	0%	0%	0%	100%	0	Yes	43
KB1	Kimbolton	West of Station Road, Kimbolton	1.3	Residential	0%	0%	0%	100%	0	Yes	20
RA3	Ramsey	West Station Yard and Northern Mill	1	Residential	0%	0%	0%	100%	0	Yes	34
RA5	Ramsey	Whytefield Road, Ramsey	0.9	Residential	0%	0%	0%	100%	0	Yes	40
HU18	Huntingdon	Wigmore Farm Buildings, Godmanchester	0.7	Residential	0%	0%	0%	100%	0	Yes	13
T/C-SEL3	Wyton on the Hill	Wyton on the Hill	254.06	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
CfS2017:141	Huntingdon	Lodge Farm, Huntingdon	307	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
CfS2017:157	Huntingdon	Former Police HQ site (part), Hinchingbrooke Park Road, Huntingdon	5.8	Mixed	0%	0%	0%	100%	0	Yes	75
CfS2017:209	Huntingdon	Northeast of Alconbury Airfield	130	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
CfS2017:123	Huntingdon	East of Romans' Edge, Godmanchester (amended boundary)	73	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
CfS2017:188	Huntingdon	Dexters Farm, Godmanchester	12.9	Mixed	0%	0%	0%	100%	Discounted for non-flooding reason	No	0
CfS2017:185	Ramsey	East of Valiant Square, Bury	3.56	Residential	0%	0%	0%	100%	0	Yes	90
CfS2017:220	St Neots	North of St James Road, Little Paxton	1.3	Residential	0%	0%	0%	100%	0	Yes	34
CfS2017:226	Buckden	East of Silver Street and South of A1, Buckden	14.8	Residential	0%	0%	0%	100%	0	Yes	270
CfS2017:070	Kimbolton	North of Station Road/Stowe Road, Kimbolton	2.5	Residential	0%	0%	0%	100%	0	Yes	66
CfS2017:001	Somersham	East of Robert Avenue, Somersham	1.8	Residential	0%	0%	0%	100%	0	Yes	50

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	Non-flooding factor	Add into housing figures?	Dwellings to 2036
CfS2017:171	Somersham	College Farm, West of Newlands industrial estate, Somersham	1.8	Residential	0%	0%	0%	100%	0	Yes	57
CfS2017:035	Warboys	South of Stirling Close, Warboys	1.9	Residential	0%	0%	0%	100%	0	Yes	50
CfS2017:059	Alconbury	North of School Lane, Alconbury	6.3	Residential	0%	0%	0%	100%	0	Yes	95
CfS2017:015	Bluntisham	North of 10 Station Road, Bluntisham	1.1	Residential	0%	0%	0%	100%	0	Yes	29
CfS2017:157	Bluntisham	West of Longacres, Bluntisham	7.8	Residential	0%	0%	0%	100%	0	Yes	150
CfS2017:	Great Staughton	Between 20 Cage Lane and Averyhill, Great Staughton	0.4	Residential	0%	0%	0%	100%	0	Yes	14
CfS2017:	Great Staughton	South of 29 The Green, Great Staughton	0.7	Residential	0%	0%	0%	100%	0	Yes	20

Do the sites passing the sequential test collectively meet objectively assessed needs?

Housing requirement (A)	20,100
Completions and commitments (B)	4,409
Allocations wholly within flood zone 1 (C)	6,639
Total (D)	**11,048**
Additional allocations required to meet objectively assessed needs (A) – (D)	9,052
Do the sites passing the sequential test at this point collectively meet objectively assessed needs?	**No**

>75% of site lies within Flood Zone 1

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	Non-flooding factor	Comment	Add into housing figures?	Dwellings to 2036
SEL1.1	Huntingdon	Former Alconbury Airfield and Grange Farm	575	Mixed	1%	1%	0%	98%	Large site started but retained as an allocation	Use of the Sequential Approach means, given the size of the site, development can be placed away from Flood Zones 2 and 3, with the area affected by flood risk left undeveloped. Approximately 577 hectares of land is available outside of the Flood Zones.	Yes	5000
SI1	St Ives	St Ives West	53.79	Residential	2%	0%	0%	98%	0	Use of the Sequential Approach means, given the size of the site, development can be placed away from Flood Zones 2 and 3, with the area affected by flood risk left undeveloped. Approximately 52 hectares of land is available outside of Flood Zones 2 and 3.	Yes	506
HELAA 2016	St Ives	Gifford's Park	126.97	Mixed	0%	0%	3%	97%	Discounted for non-flooding reason	Use of the Sequential Approach means, given the size of the site, development can be placed away from Flood Zone 2, with the area affected by Flood Zone 2 left undeveloped. Approximately 122 hectares of land is available outside of Flood Zone 2.	No	0
RA2	Ramsey	Ramsey Gateway	1.8	Residential	0%	4%	6%	90%	0	Use of the Sequential Approach means development can be placed away from Flood Zones 2 and 3, with the area affected by flood risk left undeveloped - approximately 1.9 hectares of land is available for development outside of the Flood Zones.	Yes	52
HELAA 2016	St Neots	Riversfield, Little Paxton	9.86	Mixed	5%	2%	3%	90%	Discounted for non-flooding reasons	Use of the Sequential Approach means, given the size of the site, development can be placed away from Flood Zones 2 and 3, with the small area affected by Flood Zone 2 and 3 left undeveloped.	No	0
SEL2	St Neots	St Neots East	226	Mixed	1%	7%	4%	88%	0	Use of the Sequential Approach means, given the size of the site, development can be placed away from Flood Zones 2 and 3, with the area affected by flooding left undeveloped. Approximately 198 hectares of land is available outside of the Flood Zones.	Yes	3820
LP2013 HU22	Huntingdon	North of Clyde Farm, Godmanchester	2.15	Residential	8%	2%	4%	86%	Discounted for non-flooding reason	Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. Approximately 1.8 hectares of the site is outside of Flood Zones 2 and 3.	No	0
LP2013 SY6	Sawtry	Bill Hall Way, Sawtry	1.7	Residential	0%	12%	9%	79%	0	Use of the Sequential Approach means development can be placed away from Flood Zones 2 and 3, with the area affected by flood risk left undeveloped - approximately 1.4 hectares of land is available for development outside of the Flood Zone 2 and 3.	Yes	0

Do the sites passing the sequential test collectively meet objectively assessed needs?

Housing requirement (A)	20,100
Completions and commitments (B)	4,409
Allocations wholly within flood zone 1 (C)	6,639
Allocations with 75% of the site within flood zone 1 (C2)	9,378

Total (D)	**20,426**
Additional allocations required to meet objectively assessed needs (A) – (D)	-326
Do the sites passing the sequential test at this point collectively meet objectively assessed needs?	**Yes**

Step 2 Can development be allocated in the lowest risk sites available in flood zone 2?

1.1 Despite meeting the housing requirement, it is considered worthwhile to assess additional sites to increase flexibility of supply, and to take advantage of specific regeneration opportunities.

100% of site lies within Flood Zone 1 or 2

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	uFMfSW 30yr	uFMfSW 100yr	uFMfSW 1,000yr	Historic Flood Map	Reservoir inundation mapping	Non-flooding factor	Comment	Add into housing figures?	Dwellings to 2036
HU14	Huntingdon	Brampton Park Golf Club Practice Ground	2.96	Residential	0%	0%	59%	41%	0%	0%	6%	0%	100%	0	Use of the Sequential Approach is limited due to the amount of the site that is covered by Flood Zone 2; therefore any Highly Vulnerable development placed within Flood Zone 2 will be required to pass the Exception Test. As less than half the site is in Flood Zone 1, there may be implications for the amount and type of development for the site.	Yes	65
HU9	Huntingdon	Main Street, Huntingdon	1.2	Residential	0%	0%	100%	0%	1%	21%	39%	100%	100%	0	Use of the Sequential Approach is limited due to the site being located entirely within Flood Zone 2; therefore any Highly Vulnerable development placed within Flood Zone 2 will be required to pass the Exception Test.Safe access and egress is not considered an issue, although climate change may increase the extent of surface water and fluvial flooding in the future and have the potential to affect routes.	Yes	30

Do the sites passing the sequential test collectively meet objectively assessed needs?

Housing requirement (A)	20,100
Completions and commitments (B)	4,409
Allocations wholly within flood zone 1 (C)	6,639
Allocations with 75% of the site within flood zone 1 (C1.1)	9,378
>100% of site lies within Flood Zone 1 or 2 (C2.0)	95
Total (D)	**20,521**
Additional allocations required to meet objectively assessed needs (A) – (D)	-421
Do the sites passing the sequential test at this point collectively meet objectively assessed needs?	**Yes**

>75% of site lies within Flood Zone 1 or 2

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	uFMfSW 30yr	uFMfSW 100yr	uFMfSW 1,000yr	Historic Flood Map	Reservoir inundation mapping	Non-flooding factor	Comment	Add into housing figures?	Dwellings to 2036
ECS+ 13	Huntingdon	Thrapston Road, north and west of Church Road	5.74	Residential	7%	10%	24%	59%	0%	1%	5%	32%	100%	0	Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. Safe access and egress is not affected by flooding. Approximately 3.2 hectares of the site is outside of Flood Zones 2 and 3.	Yes	0
HU7	Huntingdon	Gas Depot, Mill Common, Huntingdon	0.64	Residential	8%	0%	36%	56%	0%	0%	0%	47%	100%	0	Use of the Sequential Approach means development may be placed away from Flood Zones 2 and 3, with the area affected by the Flood Zones left undeveloped - approximately 0.35 hectares of land is available for development outside of the Flood Zones.	Yes	11
HU13	Huntingdon	Brampton Park	34.4	Mixed	7%	6%	37%	50%	0%	1%	15%	0%	193%	Large site started but retained as an allocation	Use of the Sequential Approach means development can be placed away from Flood Zones 2 and 3, with the area affected by flood risk left undeveloped - approximately 17.3 hectares of land is available for development outside of the Flood Zones.	Yes	600
SN1	St Neots	St Mary's Urban Village, St Neots	0.9	Mixed	7%	6%	88%	0%	0%	0%	1%	100%	1%	Small part of site has had development started on it.	The majority of the site is located in Flood Zone 2 and it is therefore not feasible to place development outside of Flood Zones 2 and 3. This may have implications for the amount and type of development for the site. Any Highly Vulnerable development placed within Flood Zone 2 will be required to pass the Exception Test.The main access and agress routes are affected by flooding, therefore safe access and egress will be required by development, or safe refuge provided if evacuation is not possible during a flood. Climate change may increase the extent of surface water and fluvial flooding in the future and have the potential to affect routes.	Yes	40

Do the sites passing the sequential test collectively meet objectively assessed needs?

Housing requirement (A)	20,100
Completions and commitments (B)	4,409
Allocations wholly within flood zone 1 (C)	6,639
Allocations with 75% of the site within flood zone 1 (C1.1)	9,378
>100% of site lies within Flood Zone 1 or 2 (C2.0)	95
>75% of site lies within Flood Zone 1 or 2 (C2.1)	651
Total (D)	**21,172**
Additional allocations required to meet objectively assessed needs (A) – (D)	-1,072
Do the sites passing the sequential test at this point collectively meet objectively assessed needs?	**Yes**

Step 3 Can development be allocated within the lowest risk sites available in flood zone 3?

>65% of site lies within Flood Zone 1 or 2

Site ref	SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	uFMfSW 30yr	uFMfSW 100yr	uFMfSW 1,000yr	Historic Flood Map	Reservoir inundation mapping	Non-flooding factor	Comment	Add into housing figures?	Dwellings to 2036
HU17	Huntingdon	RGE Engineering, Godmanchester	2.57	Residential	24%	3%	7%	66%	0%	0%	4%	100%	99%	0	Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. Safe access and egress is potentially an issue as the B1044 is affected by fluvial flooding to the north and the south of the site. Climate change may increase the extent of surface water flooding in the future and have the potential to affect routes further.	Yes	90
SN3	St Neots	Cromwell Road North, St Neots	2.61	Residential	32%	2%	2%	64%	6%	15%	22%	1%	0%	0	Risk to development could be reduced through using the Sequential Approach to place development outside of the Food Zones. Safe access and egress is not considered an issue, although climate change may increase the extent of surface water and fluvial flooding in the future and have the potential to affect routes. The watercourse is culverted under the site; it is possible that the culvert has not been taken into consideration when defining Flood Zones. Detailed modelling as part of a site specific flood risk assessment will confirm whether the culvert has been accounted for and will provide more accurate Flood Zones. Regardless of whether the site is in the Flood Zones or not, the culvert will need to be assessed to determine whether there is sufficient capacity to convey water in the future with potential increases in flow due to climate change. The potential impacts of blockage of the culvert should also be investigated and any affect on the development site should be mitigated against.	Yes	80

Do the sites passing the sequential test collectively meet objectively assessed needs?

Housing requirement (A)	20,100
Completions and commitments (B)	4,409
Allocations wholly within flood zone 1 (C)	6,639
Allocations with 75% of the site within flood zone 1 (C1.1)	9,378
>100% of site lies within Flood Zone 1 or 2 (C2.0)	95
>75% of site lies within Flood Zone 1 or 2 (C2.1)	651
>65% of site lies within Flood Zone 1 or 2 (C3)	170
Total (D)	**21,342**
Additional allocations required to meet objectively assessed needs (A) – (D)	-1,242
Do the sites passing the sequential test at this point collectively meet objectively assessed needs?	**Yes**

Step 4 Exception Test - Is development appropriate in remaining areas?

1.2 Despite meeting the housing requirement, it is considered worthwhile to assess additional sites, to provide flexibility of supply, and where there are specific regeneration opportunities.

Sites requiring application of the exception test

SPA	Site name	Area (ha)	Type of development	FZ3b	FZ3a	FZ2	FZ1	uFMfSW 30yr	uFMfSW 100yr	uFMfSW 1,000yr
Huntingdon	Tyrell's Marina, Godmanchester	0.3	Mixed	77%	9%	2%	12%	0%	0%	2%
St Ives	West of London Road, St Ives	1.51	Residential	0%	100%	0%	0%	0%	0%	<1%
St Ives	West of Cullum Farm, Hemingford Grey	1.31	Residential	0%	99%	1%	0%	<1%	2%	6%
Ramsey	Newtown Road, Ramsey	0.39	Residential	0%	84%	10%	6%	0%	<1%	1%
St Neots	Former Youth Centre, Priory Road, St Neots	0.47	Residential	6%	93%	1%	0%	0%	0%	4%
St Neots	Loves Farm Reserved Site, St Neots	1.02	Residential	26%	37%	36%	0%	10%	2%	74%
St Ives	Former car showroom, London Road, St Ives	1.4	Residential	0%	58%	42%	0%	0%	0%	0%
St Ives	Vindis Car Show Room, St Ives	2.77	Residential	7%	93%	0%	0%	0%	1%	14%
Ramsey	Ramsey Gateway (High Lode)	2.57	Residential	1%	82%	2%	16%	1%	1%	8%

Tyrell's Marina, Godmanchester

Area (ha)	0.3	
Type of development	Mixed – commercial uses at ground floor level, with an element of residential	
Will the site provide wider sustainability benefits to the community that outweigh flood risk? Source: Sustainability Appraisal Summary	**Positive** • Previously developed • Very sustainable location for development with good access to services, facilities, open space and employment opportunities. • Adjacent to a cluster of buildings of strong historic distinctiveness but site currently has a detrimental impact so redevelopment could generate improvements. • Provides a limited increase in residential accommodation.	**Negative** • The site butts directly up to the A14 flyover which may have detrimental impacts in terms of noise and air pollution. However, such impacts are likely to diminish with the completion of the A14 upgrade scheme which is currently in progress.
	Conclusion: Yes. The site provides wider sustainability benefits through regeneration of a very sustainably located site.	
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall? SFRA level 2 Site specific FRA related to 16/00906/FUL	**Selected SFRA level 2 evidence** • Given the majority of the site is within the Functional Floodplain the type and amount of development within the site will be restricted. • Safe access and egress is potentially an issue as the route from the site is affected by fluvial flooding to the north and surface water flooding to the south. • Given the majority of the site is within flood zone 3 flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site will be required for flood compensation. Prospects for effective mitigation would need to be established before taking the site forward. **Site specific FRA evidence, April 2017** • The floor level of the units will be a minimum of 10.45m and a flood defence wall and raised land will be provided with a crest level of 10.45m to protect the site and Bridge Place from flooding. • The existing site is shown to be in Flood Zone 3 on the Environment Agency's mapping and with the proposed ground level remodelling and the perimeter wall included the Environment Agency's Lower Ouse Catchment Model shows the site outside flood zone 3 and it would be in Flood Zone 1. In accordance with the Planning Practice Guidance for the National Planning Policy Framework this is suitable for residential development. • There will be an emergency warning system installed to alert occupiers if the vehicular access under the A14 is at risk of being flooded. This is in addition to all purchasers being advised to enrol in the Environment Agency's Flood Warning system. When the access under the A14 for vehicles is cut off an emergency access for vehicles via Bridge Place will be available. • The surface water drainage proposal is to maintain the existing discharge direct to the River Great Ouse with a new outfall using a flap valve and a non-return valve together with a surface water pump to deal with any surface water which cannot discharge by gravity to the river in times of flood. The use of infiltration drainage adjacent to the river is considered to be inappropriate. **Will the site be safe for its lifetime…?** **…without increasing flood risk elsewhere and where possible reducing flood risk overall?** It is understood that the Environment Agency has yet to agree with proposed flood risk mitigation for this site. Although further information is required and has not been forthcoming changes have been made to the allocation (residential capacity not specified, to be determined through a design led approach addressing all aspects of flood risk first; flood plain compensation required) so that it is possible to conclude that the site passes this part of the exception test.	
	Conclusion: Yes	
Conclusion – does the site pass the exception test?	Yes	

West of London Road, St Ives

Area (ha)	1.51	
Type of development	Residential	
Will the site provide wider sustainability benefits to the community that outweigh flood risk? Sustainability Appraisal Summary	**Positive** • Within accessibility thresholds for a food shop, employment, and public transport • Provides a relatively limited increase in residential accommodation, including the potential for affordable housing	**Negative** • Green field land • Not within accessibility thresholds for open space/sports, health or education
	Conclusion: No. The site is in a relatively sustainable location, but this does not outweigh flood risk given the relatively limited amount of housing it provides, and that the site is greenfield.	
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall? SFRA level 2 No site specific FRA	**Selected SFRA level 2 evidence** • The whole of the site is located in Flood Zone 2 and 3; therefore the amount and type of development may be limited. This is particularly important due to the lack of safe access and egress when the River Great Ouse is in flood. • Given the whole of the site is within flood zone 2 and 3 flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site may be required for flood compensation. Prospects for effective mitigation would need to be established before taking the site forward. **Will the site be safe for its lifetime…?** **…without increasing flood risk elsewhere and where possible reducing flood risk overall?** Further site-specific flood risk mitigation information has been supplied such that it possible to conclude that the site passes this part of the exception test.	
	Conclusion: Yes	
Conclusion – does the site pass the exception test?	No	

West of Cullum Farm, Hemingford Grey

Area (ha)	1.31	
Type of development	Residential	
Will the site provide wider sustainability benefits to the community that outweigh flood risk? Sustainability Appraisal Summary	**Positive** • Within accessibility thresholds for employment, and public transport • Provides a relatively limited increase in residential accommodation, including the potential for affordable housing	**Negative** • Less than half the site is developed. • Not within accessibility thresholds for open space/sports, health, education or a food shop
	Conclusion: No. The site is not in a very sustainable location in comparison with other available sites, less than half the site is previously developed, and development of this site would only provide a relatively limited amount of housing.	
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall? SFRA level 2 No site specific FRA	**Selected SFRA level 2 evidence** • Nearly the whole site is within flood zone 3a, therefore the amount and type of development may be limited. This is particularly important due to the lack of safe access and egress when the River Great Ouse is in flood. • The site is, to some extent, afforded some protection from flood defences. These defences have a standard of protection of 1% AEP and therefore it is unlikely the site will flood until events of a magnitude higher than the 1% AEP flood. However, there is still a residual risk of flooding should the defence fail (breach) due to the potential for rapid inundation of water to the site. • Given that nearly the whole of the site is within flood zone 3a flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site may be required for flood compensation. **Will the site be safe for its lifetime…?** **…without increasing flood risk elsewhere and where possible reducing flood risk overall?** Further site-specific flood risk mitigation information has not been forthcoming and so it is not possible to conclude that the site passes this part of the exception test.	
	Conclusion: No	
Conclusion – does the site pass the exception test?	No	

Newtown Road, Ramsey

Area (ha)	0.39	
Type of development	Residential	
Will the site provide wider sustainability benefits to the community that outweigh flood risk? Sustainability Appraisal Summary	**Positive** • The land is brownfield land. Given its previous commercial use, high quality development would offer the opportunity to improve the streetscape. • Located in close proximity to services, employment, public transport and open space • Provides a limited increase in residential accommodation	**Negative** • It is possible that development could lead to minor light pollution over the adjoining open countryside.
	Conclusion: Yes. The site provides wider sustainability benefits through regeneration of a sustainably located site.	
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall? SFRA level 2 No site specific FRA	**Selected SFRA level 2 evidence** *This site is in an Internal Drainage Board area, in which water is managed via a pumped system. For sites in this area, SFRA level 2 evidence excludes information on depth, hazard and velocity and climate change which are only available through detailed modelling. A detailed hydraulic model of the relevant board system should be produced as part of the evidence base for any associated detailed flood risk assessment in the IDB area.* • Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. Given the majority of the site is located in Flood Zones 2 and 3 this may restrict the type and amount of development within the site. • Access and egress is potentially at risk from fluvial flooding; however, there is an alternative safe access route along Newtown Road. **Will the site be safe for its lifetime…?** **…without increasing flood risk elsewhere and where possible reducing flood risk overall?** Although some further site-specific flood risk mitigation information has been received it has been concluded that the site does not pass this part of the exception test.	
	Conclusion: No	
Conclusion – does the site pass the exception test?	No	

Former Youth Centre, Priory Road, St Neots

<table>
<tr><td>Area (ha)</td><td colspan="2">0.47</td></tr>
<tr><td>Type of development</td><td colspan="2">Residential</td></tr>
<tr><td rowspan="2">Will the site provide wider sustainability benefits to the community that outweigh flood risk?

Sustainability Appraisal Summary

Site specific FRA related to 15/00634/FUL</td><td>Positive</td><td>Negative</td></tr>
<tr><td>• Site is previously developed.
• Redevelopment could enhance the character & appearance of the conservation area
• Located in close proximity to services, employment, public transport and open space
• Provides a limited increase in residential accommodation</td><td>• Not within accessibility thresholds for education</td></tr>
<tr><td></td><td colspan="2">Conclusion: Yes. This site is in a sustainable location, and is previously developed site where development could enhance the character and appearance of the conservation area.</td></tr>
<tr><td rowspan="2">Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall?

SFRA level 2

Site specific FRA related to 15/00634/FUL</td><td colspan="2">Selected SFRA level 2 evidence

• Use of the Sequential Approach is limited as the whole of the site is located in Flood Zone 3; therefore any development will be required to pass the Exception Test.
• Flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site will be required for flood compensation. Prospects for effective mitigation would need to be established before taking the site forward.
• Safe access and egress is at risk from both fluvial and surface water flooding; in order to pass the Exception Test, development will need to ensure that safe access and egress can be provided for the lifetime of the development. Development should also ensure that there is no increase in flood risk that may exacerbate safe access and egress.

Site specific FRA evidence, including latest evidence April 2015

• Site specific FRA states that development can be made safe and that compensatory flood plain provision can be provided on-site.

Will the site be safe for its lifetime…?

…without increasing flood risk elsewhere and where possible reducing flood risk overall?

It has been concluded that the site passes this part of the exception test.</td></tr>
<tr><td></td><td colspan="2">Conclusion: Yes</td></tr>
<tr><td>Conclusion – does the site pass the exception test?</td><td colspan="2">Yes</td></tr>
</table>

Loves Farm Reserved Site, St Neots

Area (ha)	1.02	
Type of development	Residential	
Will the site provide wider sustainability benefits to the community that outweigh flood risk? Sustainability Appraisal Summary	**Positive** • There is the opportunity to add to the townscape by developing the site with an attractive building. • Some residential accommodation will be provided on site • Within accessibility thresholds for health, education, a food shop and employment	**Negative** • Not within accessibility thresholds for open space/sports
	Conclusion: No. The site is in a relatively sustainable location, but this does not outweigh flood risk given the relatively limited amount of housing it provides, and that the site is greenfield.	
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall? SFRA level 2 Site specific FRA related to 1300389OUT	**Selected SFRA level 2 evidence** *The SFRA notes that its mapping for this site is based on results from a 2D model developed for this SFRA. This model does not take into account the upstream attenuation on the Fox Brook.* • Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. As the whole of the site is located in the Flood Zones this may restrict the type and amount of development within the site. • Given the whole of the site is within flood zone 3 and 2 flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site may be required for flood compensation, • Safe access and egress is not considered a significant issue as there are alternative routes, although climate change may increase the extent of surface water and fluvial flooding in the future and have the potential to affect routes. **Site specific FRA evidence, February 2013** • Hydraulic modelling included in a site specific FRA confirms that the site is in the lower flood risk zone of Flood Zone 2. • No flood related risks should remain after measures have been implemented to provide a sustainable drainage system and setting the Finish Floor Levels of properties above the 1 in 1000 year flood levels. • Water quantity improvements will be provided for the development through the use of SuDS • Betterment is provided in terms of Peak flow downstream of the development with the development it will be attenuated to a 5 l/s discharge rate. **Will the site be safe for its lifetime…?** **…without increasing flood risk elsewhere and where possible reducing flood risk overall?** Given that the SFRA mapping does not take into account upstream attenuation on the Fox Brook, the hydraulic modelling used in the site specific FRA provides a better picture of actual flood risk on this site. The site specific FRA states that the site will be safe for its lifetime, and that development can reduce flood risk overall.	
	Conclusion: Yes. The site specific FRA shows that the site will be safe for its lifetime, and that development can reduce flood risk overall.	
Conclusion – does the site pass the exception test?	**N/A** – this site is not now subject to the exception test, passing the sequential test at stage 2. It is therefore considered suitable for allocation	

Former car showroom, London Road, St Ives

<table>
<tr><td>Area (ha)</td><td colspan="2">1.4</td></tr>
<tr><td>Type of development</td><td colspan="2">Residential</td></tr>
<tr><td rowspan="2">Will the site provide wider sustainability benefits to the community that outweigh flood risk?

Sustainability Appraisal Summary</td><td>Positive</td><td>Negative</td></tr>
<tr><td>• The site is previously developed land.
• Higher density development would be appropriate on this land given its location close to the town centre.
• Development has the potential to improve the character and appearance of the conservation area.
• Within accessibility thresholds for open space/sports, cultural/social activities, health, and employment
• Some residential accommodation will be provided on site</td><td>• Not within accessibility thresholds for education, a food shop and public transport</td></tr>
<tr><td colspan="3">Conclusion: Yes. The site provides wider sustainability benefits through regeneration of a relatively sustainably located site, where development could improve the character and appearance of the conservation area.</td></tr>
<tr><td rowspan="2">Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall?

SFRA level 2

No site specific FRA</td><td colspan="2">Selected SFRA level 2 evidence

• Use of the Sequential Approach is limited due to the whole of the site being covered by Flood Zones 2 and 3; therefore the amount and type of development for the site may be restricted.
• Given the whole of the site is within flood zone 3 and 2 flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site may be required for flood compensation.
• Prospects for effective mitigation would need to be established before taking the site forward.
• The site is afforded some protection from flood embankments. These defences have a 1% AEP standard of protections; however, there is still a residual risk of flooding should the defence fail (breach). There is also the potential for the defence to overtop in the future due to climate change. Therefore, it is important that the defences in this area continue to be maintained in line with catchment policy and that any development accounts for the potential residual risk.
• Safe access and egress is at risk from fluvial flooding; in order to pass the Exception Test, development will need to ensure that safe access and egress can be provided for the lifetime of the development. Development should also ensure that there is no increase in flood risk that may exacerbate safe access and egress.

Will the site be safe for its lifetime…?

…without increasing flood risk elsewhere and where possible reducing flood risk overall?

Further site-specific flood risk mitigation information has been received and it has been concluded that the site passes this part of the exception test.</td></tr>
<tr><td colspan="2">Conclusion: Yes</td></tr>
<tr><td>Conclusion – does the site pass the exception test?</td><td colspan="2">Yes</td></tr>
</table>

Vindis Car Show Room, St Ives

Area (ha)	2.27	
Type of development	Residential	
Will the site provide wider sustainability benefits to the community that outweigh flood risk? Sustainability Appraisal Summary	**Positive** • Within accessibility thresholds for open space/sports, cultural/social activities, a food shop (although the shop provides only a limited range of food), employment and public transport • Residential accommodation will be provided on site	**Negative** • The site is previously developed but is currently in an alternative use and is not in need of regeneration • Not suitable for higher density development as it is located at the edge of St Ives and at an entrance to the town. • The site is prominently placed on the road and therefore there should be actions taken to minimise light and noise pollution. • Not within accessibility thresholds for health or education
	Conclusion: No. Although the site is relatively sustainably located, it is currently in an alternative use, and is not in need of regeneration.	
Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall? SFRA level 2 No site specific FRA	**Selected SFRA level 2 evidence** • The whole of the site is located in Flood Zone 3; therefore the amount and type of development may be limited. • This is particularly important due to the lack of safe access and egress when the River Great Ouse is in flood. • The site is, to some extent, afforded some protection from flood defences. These defences have a standard of protection of 1% AEP and therefore it is unlikely the site will flood until events of a magnitude higher than the 1% AEP flood. • Given the whole of the site is within flood zone 3 flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site may be required for flood compensation. **Will the site be safe for its lifetime…?** **…without increasing flood risk elsewhere and where possible reducing flood risk overall?** Further site-specific flood risk mitigation information has been received and it is possible to conclude that the site passes this part of the exception test.	
	Conclusion: Yes	
Conclusion – does the site pass the exception test?	**No**	

Ramsey Gateway (High Lode)

<table>
<tr><td>Area (ha)</td><td colspan="2">2.57</td></tr>
<tr><td>Type of development</td><td colspan="2">Residential</td></tr>
<tr><td rowspan="2">Will the site provide wider sustainability benefits to the community that outweigh flood risk?

Sustainability Appraisal Summary</td><td>Positive</td><td>Negative</td></tr>
<tr><td>• Although more than half the site is classed as grade 1 agricultural land, it would not be capable of being farmed and should be considered as urban land.
• Higher densities are considered to be appropriate.
• The western part lies in a conservation area. Appropriate redevelopment could provide the opportunity to enhance its character and appearance.
• Within accessibility thresholds for open space, health, education, a food shop, employment and public transport</td><td></td></tr>
<tr><td></td><td colspan="2">Conclusion: Yes. The site provides wider sustainability benefits through development of a very sustainably located site. Since the site is partially previously developed and on the other part is land that could not be farmed effectively, development here would be effective use of land.</td></tr>
<tr><td rowspan="2">Will the site be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall?

SFRA level 2

Site specific FRA related to 05/01658/OUT</td><td colspan="2">Selected SFRA level 2 evidence

NB. This site is in an Internal Drainage Board area, in which water is managed via a pumped system. SFRA level 2 evidence excludes information on depth, hazard and velocity and climate change which are only available through detailed modelling. A detailed hydraulic model of the relevant board system should be produced as part of the evidence base for any associated detailed flood risk assessment in the IDB area.

• Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. Given the majority of the site is located in Flood Zones 2 and 3 this may restrict the type and amount of development within the site.
• Access and egress is potentially at risk from fluvial flooding; however, there is an alternative safe access route along Great Whyte.

Site specific FRA evidence, September 2005

• The site is partly in Flood Zones 1, 2 and 3, but the actual risk of the site flooding from any Environment Agency main river or Middle Level river system is very low (less than 1%).
• Although the site is located within two Internal Drainage Districts with a standard drainage of 1 in 25 years, this accords with DEFRA guidelines for rural development. A minimum of 900mm freeboard is provided witgin the main drainage design standard to the lowest land level which provides further storage to cater for events greater than 1 in 25 years.
• Floor levels will be reaised above existing ground level.

Will the site be safe for its lifetime…?

…without increasing flood risk elsewhere and where possible reducing flood risk overall?

Further site-specific flood risk mitigation information based upon up to date evidence is required to make a conclusion as to whether the site passes this part of the exception test, but has not been forthcoming.</td></tr>
<tr><td colspan="2">Conclusion: Further information required to make a conclusion</td></tr>
<tr><td>Conclusion – does the site pass the exception test?</td><td colspan="2">N/A – this site is not now subject to the exception test, as there has been a technical start to development on site. The allocation will be retained to guide any revised proposals.</td></tr>
</table>

Appendix 2: Sequential Test for Employment

Step 1: Can development be allocated in flood zone 1?

100% of site lies within Flood Zone 1

Site ref	SPA	Site name	Area (ha)	FZ3b	FZ3a	FZ2	FZ1	Non-flooding factor	Comment
KB2	Kimbolton	South of Bicton Industrial Estate, Kimbolton	1.3	0%	0%	0%	100%	0	
LP2013 SY5	Sawtry	North of Blackhorse Ind. Estate, Sawtry	1.6	0%	0%	0%	100%	Discounted for non-flooding reason	
HU15	Huntingdon	Park View Garage, Brampton	0.41	0%	0%	0%	100%	0	
LP2013 SY4	Sawtry	South of St Andrews Way, Sawtry	1.41	0%	0%	0%	100%	Discounted for non-flooding reason	
HU5	Huntingdon	West of Edison Bell Way, Huntingdon	0.5	0%	0%	0%	100%	0	Allocated for long stay public car parking
HU3	Huntingdon	West of Railway, Brampton Rd, Huntingdon	2	0%	0%	0%	100%	0	
YX2	Yaxley	Yax Pak, Yaxley	3.2	0%	0%	0%	100%	0	

>75% of site lies within Flood Zone 1

Site ref	SPA	Site name	Area (ha)	FZ3b	FZ3a	FZ2	FZ1	Non-flooding factor	Comment
SI3	St Ives	Giffords Farm, St Ives	5.57	0%	2%	13%	85%	0	Use of the Sequential Approach means, given the size of the site, development can be placed away from the Flood Zones 2 and 3, with the small area affected by flooding left undeveloped. Approximately 4.7 hectares of land is available outside of the Flood Zones.
LP2013 SY1	Sawtry	East of Brookside, Sawtry	4	0%	15%	7%	78%	Discounted for non-flooding reason	Use of the Sequential Approach means development can be placed away from Flood Zones 2 and 3, with the area affected by flood risk left undeveloped - approximately 3.2 hectares of land is available for development outside of Flood Zone 2 and 3.

Step 2 Can development be allocated in the lowest risk sites available in flood zone 2?

100% of site lies within Flood Zone 1 or 2

Site ref	SPA	Site name	Area (ha)	FZ3b	FZ3a	FZ2	FZ1	uFMfSW 30yr	uFMfSW 100yr	uFMfSW 1,000yr	Historic Flood Map	Reservoir inundation mapping	Non-flooding factor	Comment
LP2013 SN4	St Neots	St Neots Fire Station and vacant land, St Neots	0.41	0%	0%	68%	32%	11%	10%	21%	100%	91%	Discounted for non-flooding reason	Use of the Sequential Approach is limited due to the amount of the site that is covered by Flood Zone 2; therefore any Highly Vulnerable development placed within Flood Zone 2 will be required to pass the Exception Test. As less than half the site is in Flood Zone 1, there may be implications for the amount and type of development for the site.Access and egress routes are at risk from both fluvial and surface water flooding; in order to pass the Exception Test, development will need to ensure that safe access and agress can be provided for the lifetime of the development. Development should also ensure that there is no increase in flood risk that may exacerbate flooding to routes.
T/C-SN2	St Neots	Huntingdon Street, St Neots	1	0%	0%	100%	0%	0%	2%	9%	93%	90%	Discounted for non-flooding reason	Use of the Sequential Approach is limited due to the site being located entirely within Flood Zone 2; the amount and type of development may be restricted and any Highly Vulnerable development placed within the Flood Zone will be required to pass the Exception Test.Safe access and egress is potentially an issue as all routes are affected by the 0.1% AEP flood; development will have to consider how to ensure safe access and egress can be provided, or should consider provision of safe refuge in the event that occupiers are unable to evacuate dueing a flood. Climate change may also increase the extent of surface water flooding in the future and have the potential to affect routes.

Step 3 Can development be allocated within the lowest risk sites available in flood zone 3?

Site ref	SPA	Site name	Area (ha)	FZ3b	FZ3a	FZ2	FZ1	uFMfSW 30yr	uFMfSW 100yr	uFMfSW 1,000yr	Historic Flood Map	Reservoir inundation mapping	Non-flooding factor	Comment
LP2013 RA1	Ramsey	South of The Foundry, Factory Bank, Ramsey	1.52	0%	100%	0%	0%	0%	0%	1%	0%	0%	Discounted for non-flooding reason	Given the whole of the site is located in Flood Zone 3 this may restrict the type and amount of development within the site. Safe access and egress is at risk from both fluvial and surface water flooding; in order to pass the Exception Test, development will need to ensure that safe access and egress can be provided for the lifetime of the development. Development should also ensure that there is no increase in flood risk that may exacerbate safe access and egress.

Appendix 3: Sequential Test for retail

3.1 Only one potential retail site was tested for the sequential test: Huntingdon Fire Station. Given its location in an area of flood risk and the lack of quantitative capacity for additional retail in Huntingdon, it was clear that this site would not pass the sequential test.

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Lochailort St Ives Ltd

Former Murketts Garage, St Ives, Cambridgeshire PE27 5ER

Flood Risk Assessment

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Contents

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1 Introduction

MLM Consulting Engineers Limited (MLM) has been appointed by Lochailort St Ives Ltd to undertake a site-specific Flood Risk Assessment (FRA) accompany a planning application for the proposed development of land at the Former Car Show Room, London Road, St Ives.

This report has been prepared for the sole use of Lochailort St Ives Ltd and the contents should not be relied upon by others without the express written authority of MLM. If any unauthorised third party makes use of this report they do so at their own risk and MLM owes them no duty of care or skill.

Permission is sought for the redevelopment of the site for residential use which will also comprise car parking. The site is located within the administrative boundary of Huntingdonshire District Council (HDC).

The report is an assessment of flood risk to the development, from on and off-site sources, and to off-site receptors caused by the development of the site. The following standards and guidance, with specific reference to flood risk and drainage, has been used to set the context and requirements for this report:

- National Planning Policy Framework (NPPF - March 2012) and the relevant Planning Practice Guidance (PPG – March 2014);
- The Flood and Water Management Act (2010);
- Non-statutory Technical Standard for Sustainable Drainage Systems (March 2015);
- Huntingdonshire Strategic Flood Risk Assessment Levels 1 and 2 (June 2017); and
- CIRIA C753 – The SuDS Manual.

The site is shown on the Environment Agency (EA) *Flood map for planning* (see Figure 1) to lie in Flood Zone 3 (high risk). Flood Zone 3 is the area described as having a 1% or greater annual probability of fluvial flooding, or a 0.5% or greater annual probability of tidal flooding in any year. The site is shown to be in a location that benefits from defences.

Figure 1 - EA *Flood map for planning*

This report concludes that in flood risk context, the proposals are safe and appropriate and do not cause any increase in flood risk.

1.1 Scope

In Accordance with the assessment criteria found in the NPPF, this report seeks to;

- Ensure that flood mitigation is provided within the site to protect the proposed development and avoid detrimental flood risk impacts to third parties, off site;
- Ensure that the impacts of climate change are adequately accounted for;
- Ensure impermeable areas within the proposed development are minimised where practicable to minimise runoff; and
- Ensure the use of Sustainable Drainage Systems (SuDS) is optimised in line with current best practice.

1.2 Sequential and Exception Tests

As identified in the Huntingdonshire Local Plan to 2036, the draft allocation of the site for residential redevelopment was passed during the consultation meeting in July 2017. The draft allocation document states that "despite the flood risk present at the site, the potential to regenerate this currently derelict, previously developed site presents opportunities to enhance the street scene, and in particular the character and appearance of the conservation area. It is therefore considered that the sustainable location of the site and identified need for housing, outweigh the risks posed by potential flooding".

As identified in the Local Plan Draft Allocation, this FRA report is prepared to assess flood risks to and from the site and to identify appropriate mitigation measures to ensure the proposals will not be at risk of flooding and will not increase flood risk elsewhere.

In accordance with the PPG, the Sequential Test ensures that a sequential approach is followed to steer new development to areas with the lowest probability of flooding. In accordance with Table 3 of Technical Guidance to the NPPF, the Sequential Test is required to be passed for developments proposed in Flood Zones 3. The Sequential Test does not form part of this FRA.

Paragraph 102 of the NPPF states that for the Exception Test to be passed:

- It must be demonstrated that the development provides wider sustainability benefits to the community that outweigh the flood risk, informed by a Strategic Flood Risk Assessment where one has been prepared; and
- A site-specific flood risk assessment must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Both elements of the test will have to be passed for development to be allocated or permitted. The second part of the Exception Test, that the development will be safe for its lifetime, is addressed by this FRA; the first part of the Exception Test, relating to sustainability benefits does not form part of this FRA.

2 Site Description

2.1 Existing Site

The site is located close to St. Ives town centre and is centered on approximate Ordnance Survey (OS) grid reference 531102,270745 (see Figure 2). The site extends to approximately 1.22 hectares (ha).

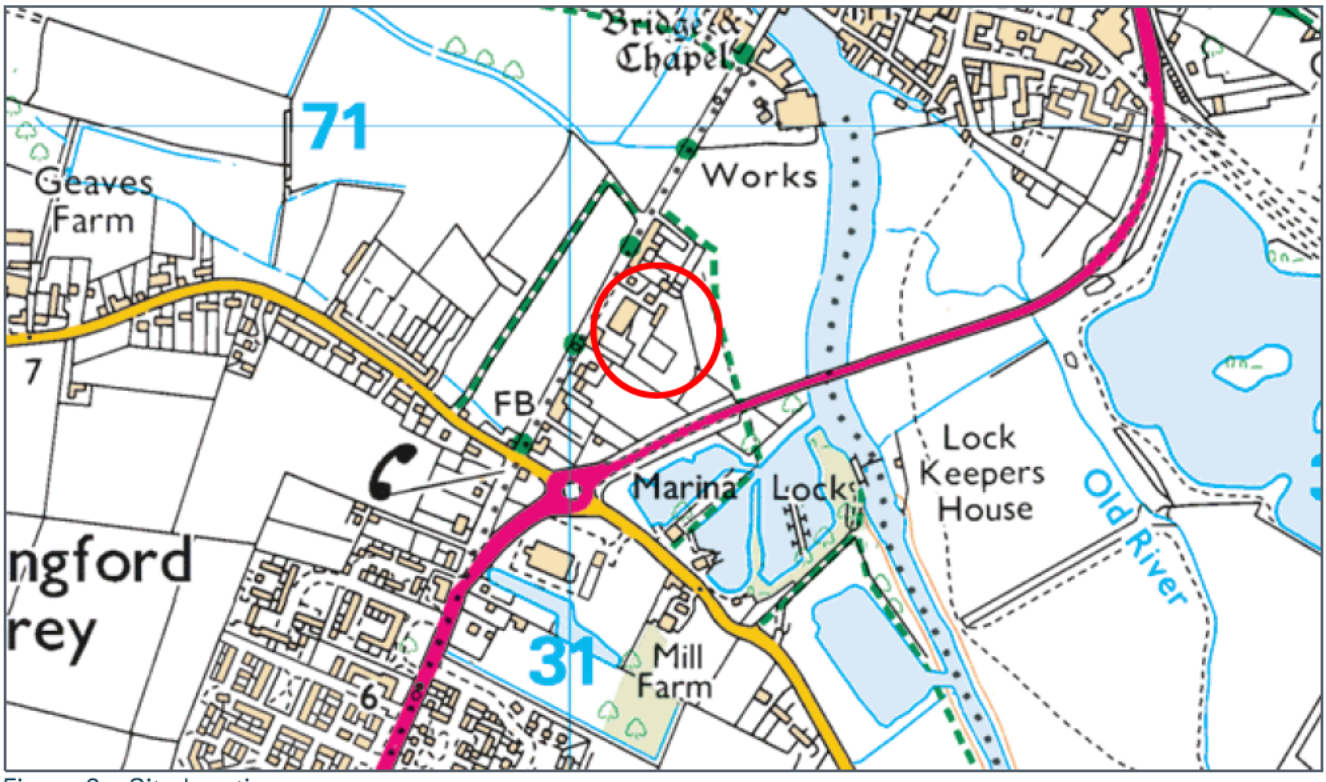

Figure 2 – Site location

The brownfield site previously comprised a car showroom with associated car parking, however, it has been vacant for a number of years. A National Grid gas valve compound lies outside the ownership of the Client but is encircled by the site.

The surrounding land use comprises a mixture of commercial, residential and agricultural usage. The north and south of the site are bounded by residential properties. To the east is an area of open grassland that forms part of the floodplain of the River Great Ouse, and includes a grassed earth bank which acts as a flood defence. The west of the site is bounded by London Road.

There are two existing accesses into the site. The site is accessed from north via London Road and from south-west. The access from south-west serves the National Grid gas valve compound.

2.1.1 Hydrology

The nearest Main River is the River Great Ouse located approximately 100 metres (m) east of the site.

The Environment Agency Asset Data map for St Ives indicates that the site is located in an area currently benefiting from flood defences. The flood defences are comprised of earth embankments and located approximately 30m to the east of the site. It is understood that the flood defence embankment was constructed between 2003 and 2006.

2.1.2 Geology

The British Geological Survey (BGS) online mapping indicates that the site is underlain with sand and gravel associated with superficial deposits of River Terrace Deposits. The bedrock geology has been identified to be Oxford Clay Formation (Mudstone).

2.1.3 Topography

The topographical survey of the site (see Appendix A) shows the site to fall slightly from west to east. Ground levels in the west of the site are circa 6.5 metres Above Ordnance Datum (mAOD), rising to circa 7.4 mAOD towards the centre of the site before falling to circa 5.7 mAOD in the east.

2.1.4 Flooding History

The SFRA indicates that Huntingdonshire has a history of documented flood events with the main source being from 'fluvial' (Watercourse) sources.

It has been noted that St Ives, which is built on the banks of the wide Great Ouse River between Huntingdon and Ely, has flooded frequently in the past. The most significant floods were in 1947, Easter 1998 and January 2003. Since these events occurred, extensive flood protection works were carried out in St Ives in 2006/2007. The defences were recorded to have been breached in December 2012.

2.1.5 Climate Change

Due to the uncertainties in flood estimation and expected climate change impacts, it is required that flood flows should include an allowance for increased flow due to climate change as outlined in the NPPF. The latest guidance published in December 2016 provides updated climate change allowances and is now required for all Flood Risk Assessments (FRAs) unless a planning application has already been submitted to the local planning authority.

Following the meeting with the EA on 30 January 2018, it was agreed that the 35% climate change allowance is the most appropriate allowance for managing residual risk to the site. This is the higher central allowance based upon the development proposals at the site.

2.2 Proposed Development

It is proposed to develop the site for residential use. This site was taken forward to the Level 2 Strategic Flood Risk Assessment (SFRA) in which a more detailed flood risk analysis has been undertaken for the site. The Huntingdonshire SFRA (2017) shows that the higher flood risk (Flood Zone 3a) is located around the boundary of the site, with the lower risk (Flood Zone 2) towards the centre. The centre of the site is located in Flood Zone 1, the area at low risk of flooding.

Residential use is classified as 'More Vulnerable' in accordance with *Table 2: Flood Risk Vulnerability Classification* of the PPG. As the site is located in Flood Zone 3, the proposed development is shown to be appropriate in accordance with *Table 3: Flood risk vulnerability and flood zone 'compatibility'* of the PPG. The Exception Test is required for 'More Vulnerable' land uses located in Flood Zone 3. This FRA deals with the second part of the Exception Test showing the site will be safe for its lifetime.

The Sequential Test, the aim of which is to steer new development to the areas with the lowest probability of flooding, is required to be passed for developments proposed in Flood Zone 3. The Sequential Test does not form part of this FRA.

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3 Policy Context

3.1 National Planning Policy Framework (March 2012)

The National Planning Policy Framework (NPPF) was enacted on 27 March 2012; paragraph 100 to 108 inclusive, established the Planning Policy relating to flood risk management. The Technical Guide to the NPPF has been superseded by the Planning Practice Guidance (PPG) in March 2014. However, there are no changes to any policies relating to flood risk.

The main focus of the policy is to direct development towards areas of the lowest practicable flood risk to ensure that all development is safe, without increasing flood risk elsewhere. The main considerations are:

- Applying the Sequential Test, and if necessary, apply the Exception Test;
- Safeguarding land from development that is required for current and future flood management;
- Using opportunities offered by new development to reduce the causes and impacts of flooding; and
- Where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to facilitate the relocation of development, including housing, to more sustainable locations.

The NPPF states that a Flood Risk Assessment is required "for proposals of 1 hectare or greater in Flood Zone 1; all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3, or in an area within Flood Zone 1 where proposed development or a change of use to a more vulnerable class may be subject to other sources of flooding".

3.2 Flood and Water Management Act (2010)

The Flood and Water Management Act 2010 defines clearer roles and responsibilities for the implementation of sustainable drainage (SuDS) in developments, by requiring drainage systems to be approved against a set of draft national standards.

In December 2014 the government set out changes to planning that apply to major development from 06 April 2015. This change confirmed that in considering planning applications, local planning authorities (LPA) should consult the relevant Lead Local Flood Authority (LLFA) on the management of surface water; satisfy themselves that the proposed minimum standards of operation are appropriate and ensure through the use of planning conditions or planning obligations that there are clear arrangements in place for ongoing maintenance over the lifetime of the development.

On 15 April 2015, Lead Local Flood Authority's became a statuary consultee on surface water and SuDS proposals.

3.3 Huntingdonshire Level 1 and 2 Strategic Flood Risk Assessment (2017)

A Strategic Flood Risk Assessment (SFRA) was completed by JBA in 2017 on behalf of HDC. The primary objective of the SFRA is to allow Council to select and develop sustainable site locations away from areas susceptible to flood risk and to inform the flooding policies, including the allocation of land for future development, within the emerging Local Development Plan.

The Level 2 SFRA indicates that developers should, where required, undertake more detailed hydrological and hydraulic assessments of the watercourses to verify flood extent (including latest climate change allowances), inform development zoning within the site and prove, if required, whether the Exception Test can be passed. Where the watercourses are embanked, the effect of overtopping and breach must be considered and appropriately assessed.

4 Sources of Flooding

The NPPF requires flood risk from the following sources to be assessed, each of which are assessed separately below:

- Fluvial sources (river flooding);
- Tidal sources (flooding from the sea);
- Pluvial sources (flooding resulting from overland flows);
- Groundwater sources;
- Artificial sources, canals, reservoirs etc; and
- It also requires the risk from increases in surface water discharge to be assessed.

The sources are discussed in more detail in the sections below.

4.1 Tidal and Fluvial Flooding

Tidal flooding is typically the result of extreme tidal conditions caused by severe weather which may cause a storm surge where water is pushed onshore through elements such as high winds and storms. Fluvial flooding occurs when excessive rainfall over an extended period of time, flash downpours or heavy snow melt causes a river to exceed its capacity.

The primary source of potential flooding is from fluvial sources associated with the River Great Ouse.

4.1.1 Overtopping Risk

The EA *Flood map for planning* indicates that that the site benefits from defences, which are located along the eastern boundary of the site, extending round to the north and continuing westwards (see Figure 3). The defences are designed to protect properties to a 1% AEP standard of protection.

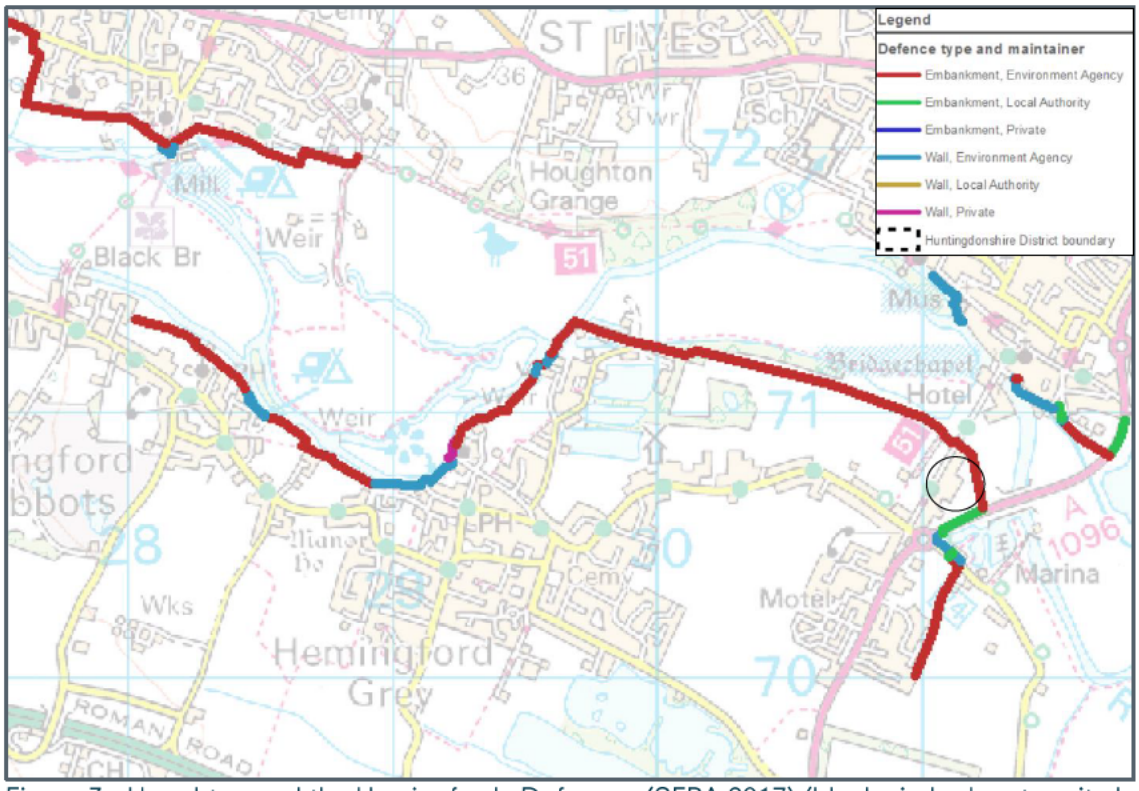

Figure 3 - Houghton and the Hemingfords Defences (SFRA 2017) (black circle denotes site location)

The existing flood defences are made up of earth grassed embankments, with the crest of the embankments set between 7.29m AOD and 7.34m AOD. The EA flood data for the River Great Ouse also indicates that the predicted peak flood level for the River Great Ouse is predicted to be 6.894m AOD for the 1% AEP inclusive of 35% allowance for climate change, providing a minimum clearance of 0.396m.

As such and taking into account the distance from the River Great Ouse, the risk posed to the site from overtopping is considered low.

4.1.2 Breach Risk

Following an initial consultation with the EA, it was advised to carry out a breach analysis appropriate to the scale of development in order to determine floor levels as a result of residual risk.

A new site-specific breach modelling exercise was undertaken by MLM in December 2017 in accordance with the Level 2 SFRA for HDC and the EA requirements for Completing Computer River Modelling for Flood Risk Assessments (2009).

The breach modelling was undertaken using the EA approved hydraulic model of the River Great Ouse, which was completed by Mott MacDonald in 2015. The analysis was carried out using TUFLOW software and the hydraulic model was updated using the latest LiDAR data, which was obtained from the EA.

A topographical survey of the embankments was carried out in November 2017 to confirm the level of protection afforded to the site by the flood defences (see Appendix A for topographical survey). The new breach model was updated using the latest topographical survey to ensure the embankment heights and floodplain features are accurately represented in the new breach model.

The existing hydraulic model of the River Great Ouse extends from Great Bedford to Stretham, and it includes 23 key towns in East Anglia. Due to the scale of the site it was deemed appropriate to truncate the existing model to cover Hemingford Grey. The new breach model starts from Meadow Lane in Hemingford Grey (XS Ref GTO14400) and extends downstream for approximately 9 km to Over.

The breach location considered for this exercise is located approximately 40m to the east of the site; breach parameters were selected based on the guidance available from the EA's Anglian Region for assessing the extent of flooding if defences breach. In line with the EA's Anglian Region guidance for a breach of an earth embankment, it was assumed that the breach extends to ground level at the landward toe of the embankment. The breach parameters from the EA Anglian Region Guidance Note (Table 4) is summarised in Table 1 below.

Table 1: Breach parameters used in the breach modelling assessment

Breach Location	Landward Ground Level (mAOD)	Defence Type	Breach Width (m)	Time to Close (hours)
531202, 270752	5.28	Earth Embankment	40	30

The breach modelling was undertaken for 'open' condition. The 'open' condition represents the breach occurring with embankment crest level lowered to ground level. As a sensitivity test the breach modelling also carried out for 'peak' condition. 'Peak' condition represents the embankment failing at the peak of the flow hydrograph.

The above methodology was discussed and agreed with the Environment Agency during a meeting held on 30 January 2018.

It was predicted that in the unlikely event that the embankment adjacent to the eastern boundary of the site was breached, parts of the site would be flooded, with maximum flood levels predicted to be up to 6.86m AOD for the 100 year fluvial including 35% allowance for climate change (Figure 4).

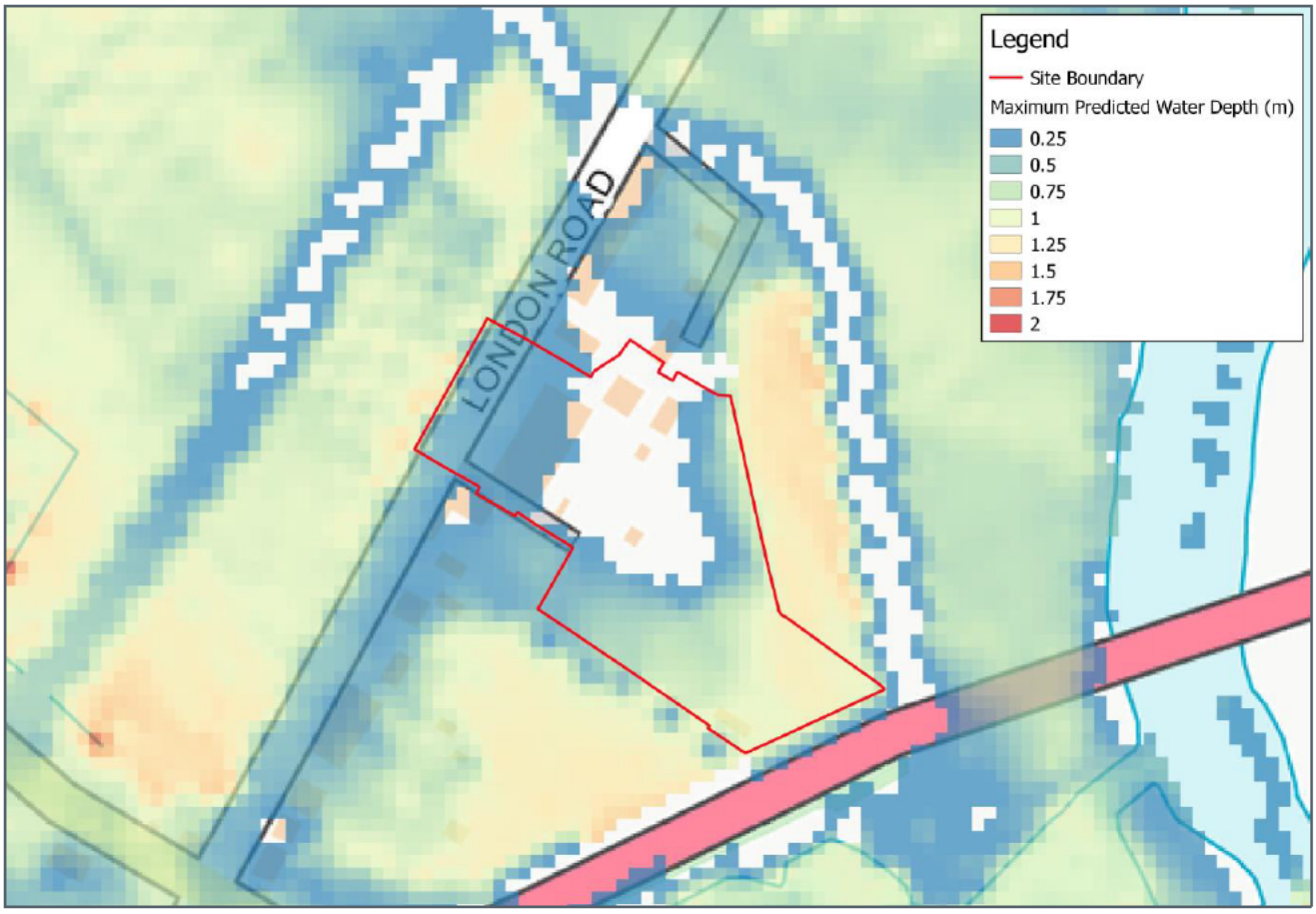

Figure 4: Breach Map

As agreed with the EA, the finished floor levels for 'more vulnerable' uses (i.e. sleeping accommodation) would be set at a minimum of 6.86m AOD, which would ensure that safe refuge is available on the first floor or above in the unlikely event of a breach, plus 300mm freeboard as a safety factor, i.e. 7.16m AOD.

4.1.3 Safe Access/Egress

In the unlikely event of a breach occurring, the preferred option would be to evacuate the occupants to higher ground via routes that avoid flood water.

Following a 1 in 100 year plus 35% climate change breach, flood water could reach the site boundary, including London Road. However, the modelling outputs have demonstrated that Harrison Way to the south eastern boundary of the site would remain free from flooding. Currently Harrison Way can be accessed via a set of steps from the rear of the site. This access route can be maintained and enhanced to provide emergency pedestrian access in the unlikely event of a breach.

Also, to mitigate the risk of flooding a Flood Management Plan (FMP) should be held and maintained within the development. The plan should set out what measures should be taken in the event of a breach of the defences and/or flooding on site. It should indicate details of how and to where people should evacuate and where safe refuge can be found on site in the event that it is not considered safe to leave the site.

4.1.4 Flood Resilience

The Communities and Local Government document *Improving the Flood Performance of New Buildings: Flood Resilient Construction* makes general recommendations for the construction of new buildings, to provide a reasonable level of flood resistance to their structural elements and finishes. The choice of materials within the proposed development should be undertaken in such a manner as to ensure that the building is as resistant to damage by flood water as is reasonably practicable. Flood resilience measures should be continued to 600mm above the breach flood level of 6.86m AOD, i.e. 7.46m AOD.

The flood modelling technical note for the breach and overtopping modelling is included as Appendix B to this report.

4.2 Surface Water from Off-Site

There is always a potential risk of surface water flooding from very high intensity rainfall events exceeding the capacity of drainage systems and causing flooding, especially in urban areas. Surface water run-off can be channelled either by natural features such as valley lines or by artificial features such as highways, to low points in the topography. If surface water is not able to flow away from the low points then pluvial flooding can occur.

Given the flat nature of the land in this area it is unlikely that surface water would be shed towards the site.

The GOV.UK *Flood risk from surface water – Extent of flooding* online mapping (see Figure 5) shows the site to be at a very low risk of flooding from surface water.

Figure 5 - GOV.UK *Flood risk from surface water – Extent of flooding*

A low to medium risk is shown on the opposite side of London Road. This area is shown on the topographical survey to be at the bottom of a bank and is therefore at a lower elevation than the site and would not affect the site.

Finished floor levels should adhere to normal good practice and be raised above surrounding ground levels with falls away from the building. This should minimise the risk of any minor localised ponding or overland surface water flow from entering the proposed building.

Assuming that mitigation advice given above is followed, the risk of flooding from this source is considered to be low.

4.3 Surface Water from On-Site

The proposed development will increase the impermeable area at the site which could increase overland flow on the site, if not properly managed. This risk should be mitigated by careful design of levels to ensure that any overland flows are directed around the proposed buildings and by ensuring that any low ground levels adjacent to the buildings have a suitable overland flood flow route and do not rely entirely on piped drainage systems.

Surface water run-off from the site should be collected, attenuated and disposed of so there is no increased off-site flood risk.

Assuming the advice given above is followed, the risk of flooding from this source is considered to be low.

4.4 Infrastructure Flooding

Anglian Water (AW) sewer records (see Appendix C) show foul water sewers located in London Road and to the west of the site.

If surcharging or blockage of any sewers or drains in the vicinity of the site did occur it is possible that there may be localised surface flooding in areas surrounding the site. However, falls away from buildings, as described above, should help mitigate against this risk.

The site is considered to be at low risk of flooding from infrastructure failure.

4.5 Water Bodies

The GOV.UK *Flood risk from reservoirs – Extent of flooding* map (see Figure 6) shows that the south of the site could be at risk of flooding from reservoir failure; no developments are proposed in this area and as such flooding would only affect the playing field area.

Advice given on the GOV.UK website states that *'flooding from reservoirs is extremely unlikely. There has been no loss of life in the UK from reservoir flooding since 1925.'*

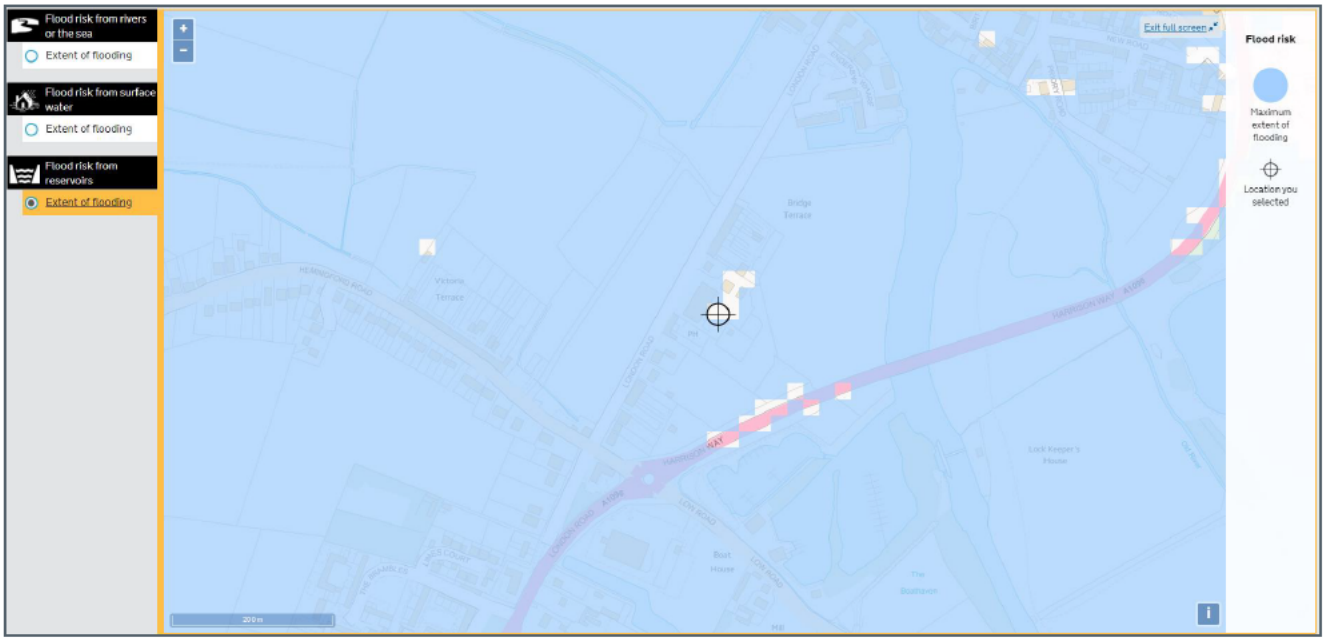

Figure 6 - GOV.UK *Flood risk from reservoirs – Extent of flooding*

The site is considered to be at low risk of flooding from this source.

4.6 Groundwater

Geology mapping (refer to Section 2) shows that the sites geology is impermeable.

The Environment Agency (EA) Groundwater map indicates that the site is located outside the Groundwater Source Protection Zone. The site is located in the 'Medium-Low' Groundwater Vulnerability Zone as shown in Figure 7 below.

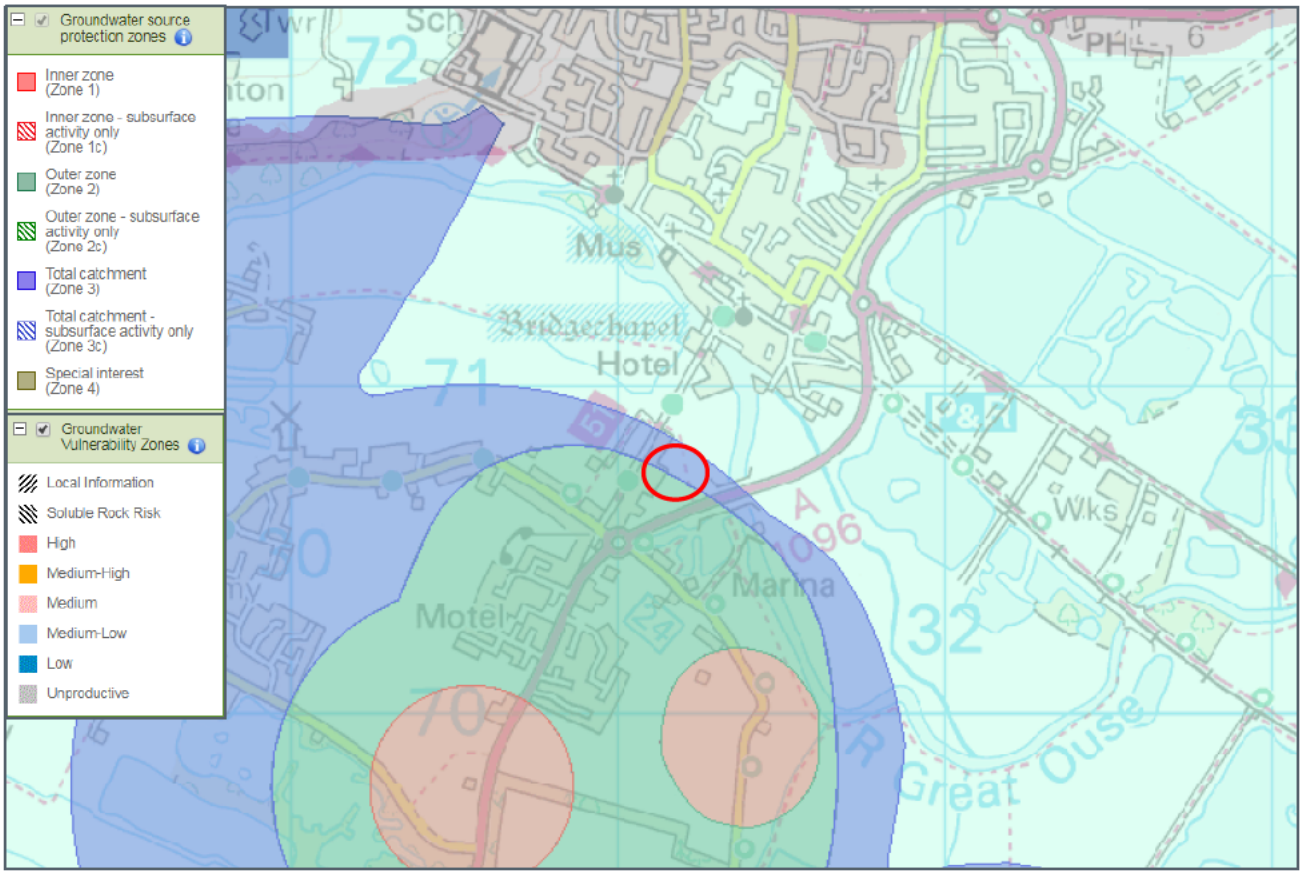

Figure 7 – EA Groundwater Vulnerability Zones (red circle denotes site location)

In the unlikely event that groundwater did express at the surface, it would be routed around buildings as described above.

The site is considered to be at low risk of flooding from this source.

4.7 Flood Risk Summary

The site is considered to be at a low risk of flooding from all sources, although there is a residual risk of flooding in the event of a breach of the defences.

The internal ground floor levels for sleeping accommodations should be set at a minimum of 6.86m AOD plus 300mm allowance for freeboard level. Flood doors will be placed on the units along the eastern boundary of the site to protect the properties from flooding. Additional flood resilient construction techniques will also be carried out to mitigate against the potential surface water or sewer flooding at the site. It is also advised that a Flood Management Plan should be kept on site and an internal safe refuge should be provided at 300m above the breach level for the 1 in 100 year, inclusive of 35% allowance for climate change (7.16m AOD).

Provided that mitigation measures discussed above are addressed, the site is assessed as not being at any significant risk of flooding from all sources.

5 Surface Water Drainage Strategy

5.1 Existing Surface Water Drainage

The existing site is brownfield land with an impermeable area of approximately 1.070 ha.

It is currently assumed that all existing drainage from the proposed buildings and hardstandings is drained via a private drainage networks and ultimately discharges to the AW sewer in London Road to the west of the site.

The existing run-off rate has been calculated using the Modified Rational Method (see brownfield calculations in Appendix D) and are based on the existing impermeable area of the site (1.070 ha). In summary, the pre-development discharge rates for the site are:

Table 2: Brownfield discharge rates

AEP Event	Brownfield Discharge Rate (l/s)
100%	4.13
3.3%	8.69
1%	11.1

AEP = Annual Exceedance Probability

5.2 Proposed Surface Water Drainage

The DEFRA *Sustainable Drainage Systems Non-statutory technical standards for sustainable drainage systems* guidance requires that discharge of surface water run-off from the site should be restricted to greenfield rates. Once a masterplan layout is formed and becomes available for the site, the greenfield run-off discharge rates will be calculated using the ICP SuDS method in MicroDrainage and FEH data. The greenfield run-off discharge rates will be based on the proposed impermeable areas, as recommended in C753.

Once a masterplan is formed, a sustainable drainage strategy (SuDS) will be developed to ensure the surface water run-off from the site are appropriately managed and treated and do not result in increase in surface water flooding elsewhere.

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6 Conclusions and Recommendations

The site is located in Flood Zones 1, 2 and 3 from residual flooding associated with a breach of the embankments to the east of the site. The site is at low risk of flooding from pluvial and ground water flooding.

The draft allocation of the site for residential redevelopment was passed during the consultation meeting in July 2017.

Following the initial consultation with the EA, a detailed breach analysis was undertaken to determine floor levels as a result of residual risk. The modelling methodology and approach was discussed and agreed with the EA during a meeting on 30 January 2018.

It was predicted that in the unlikely event that the flood defence embankment was breached, parts of the site would be flooded, with maximum flood levels predicted to be up to 6.86m AOD for the 100 year fluvial including 35% allowance for climate change.

Within areas identified as Flood Zone 3, the less vulnerable uses (i.e. kitchen, utility rooms, living rooms and garages) can be set at ground level, with bedrooms on upper floors (above breach flood level for the 1 in 100 year, inclusive of 35% climate change). Flood resilient construction techniques should also be carried out. A Flood Management Plan should be kept on site and an internal safe refuge should be provided at 300m above the breach level for the 1 in 100 year, inclusive of 35% allowance for climate change, i.e. 7.16m AOD. Emergency access should be provided via the existing steps leading to Harrison Way.

The site is considered to be at low risk of flooding from surface water, groundwater and artificial sources.

The proposed surface water discharge rates will be reduced to Greenfield run-off rates, and once a masterplan is formed, a sustainable drainage strategy (SuDS) will be developed to ensure the surface water runoff from the site are appropriately managed and treated and do not result in increase in surface water flooding elsewhere.

This Flood Risk Assessment has demonstrated that the flood risks associated with the site can be managed appropriately and as such, the level of flood risk can be downgraded or reduced.

In conclusion, this FRA demonstrates that the proposals are consistent with the aims of the NPPF and its Planning Practice Guidance, along with the aims of the Strategic Flood Risk Assessment. The site will not be at significant risk of flooding, or increase flood risk to others.

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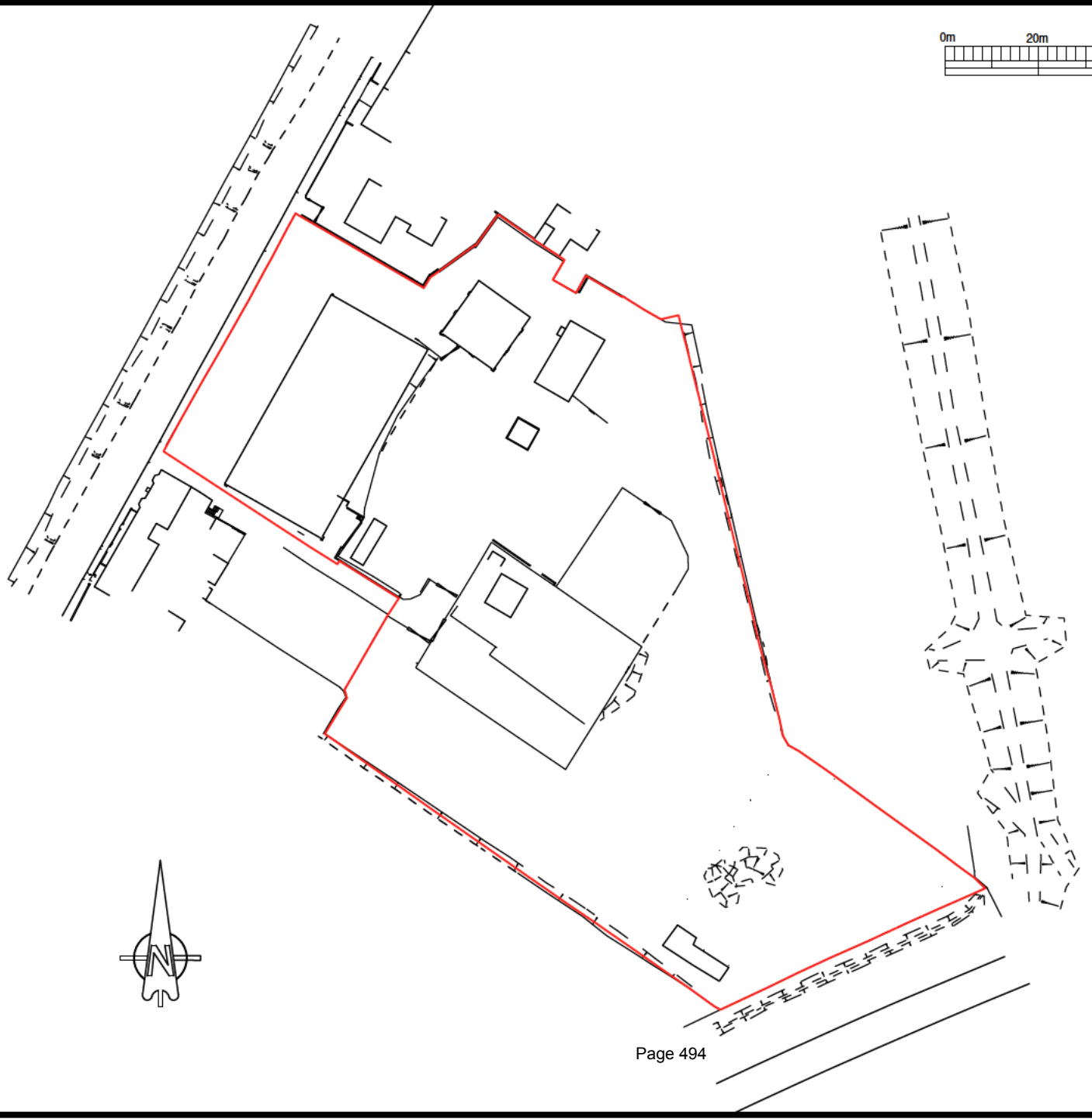
Appendix A - Existing Site

Siteline drawing 396MG125B – Outline Survey

EDI Surveys drawing 15281/T/01-01 – Topographical Survey



Revision B - November 2016
Proposed ownership boundary added

Revision A - November 2016
Survey extended

Geomatic Surveyors

siteline

Unit E, Woodside
34 Parham Drive
Eastleigh
SO50 4NU

t: 023 8081 1081
f: 023 8081 1012
w: siteline.co.uk

LOCHAILORT INVESTMENTS LTD	Client
MURKETTS GARAGE LONDON ROAD ST. IVES	Contract
OUTLINE SURVEY	Title
396MG125B	Drawing No.
FEBRUARY 2015	Date
1:1250 (A4)	Scale
ST	Surveyor

Rev.	Job No.	Date	Revision Detail	Surveyor	Chkd

CLIENT

Geosphere Environmental Ltd
Brightwell Barns
Ipswich Road
Brightwell , Ipswich
IP10 0BJ

PROJECT

Services Scan and Marking Up
Murketts Garage
London Road
St Ives
CB22 5DG

Job No.	Surveyor	Checked	Date	Scale
15281	M Cobie	GMP	Oct. 2015	1:200

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REV. -

SUBSCAN

Y

THE SURVEY ASSOCIATION

UVDB Verify

siteline

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Appendix B - Flood Modelling

MLM Technical Note for Modelling – 618862-MLM-ZZ-XX-RP-C-0003-TechNote

Maximum Predicted Flood Depth for 1 in 100 Year Event

Job Title:	Former Murketts Garage, St Ives, Cambridgeshire
Document Title:	Modelling Note
Document Reference:	618862-MLM-ZZ-XX-RP-C-0002
MLM Reference:	JRC/618862/RA
Revision:	0
Date:	2 March 2018

Technical Note - Modelling

1 Background

The site is located close to St. Ives town centre. The entirety of the site is previously developed which comprised a car showroom with associated car parking. A National Grid gas valve compound lies outside the ownership of Lochailort St Ives Ltd but is encircled by the site.

The site has been vacant for a number of years, however it could lawfully reopen for car sales, maintenance and storage at any time. In its current state, the site severely harms the character and appearance of the Conservation Area.

There are two existing accesses into the site. The site is accessed from north via London Road and from south-west. The access from south-west serves the National Grid gas valve compound.

As identified in the Huntingdonshire Local Plan to 2036, the draft allocation of the site for residential redevelopment was passed during the consultation meeting in July 2017. The draft allocation document states that "despite the flood risk present at the site, the potential to regenerate this currently derelict, previously developed site presents opportunities to enhance the street scene, and in particular the character and appearance of the conservation area. It is therefore considered that the sustainable location of the site and identified need for housing, outweigh the risks posed by potential flooding".

In accordance with the assessment criteria found in the National Planning Policy Framework (NPPF) and its Planning Practice Guidance (PPG), a site-specific detailed modelling exercise has been undertaken to accurately assess flood risk to the site.

2 Modelling Approach

This modelling assessment has been undertaken to understand the flood risks associated with the River Great Ouse that flows to the south of the site and the associated flood extent and level should a breach occur in the embankment protecting the site from the south.

The hydraulic model for this study is a linked 1D-2D model which has been built based on the Environment Agency (EA) approved model of the River Great Ouse which was built using ISIS and Tuflow software.

To overcome stability issues associated with the original ISIS-Tuflow model, the 1D cross-sections representing the watercourse have been converted and are now being represented in the ESTRY module of Tuflow software. Floodplain features are being represented in the 2D domain of the model.

The existing hydraulic model of the River Great Ouse extends from Great Bedford to Stretham, and it includes 23 key towns in East Anglia. Due to the scale of the site it was deemed appropriate to truncate the existing model to cover Hemingford Grey. The new breach model starts from Meadow Lane in Hemingford Grey (XS Ref GTO14400) and extends downstream for approximately 9 km to Over.

T +44 1473 231 100
A North Kiln, Felaw Maltings
46 Felaw Street
Ipswich, IP2 8PN

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3 Topographical Survey

A topographical survey was undertaken by Geomatics Surveyors in November 2017 to pick up the drains, embankments and roads (London Road and Harrison Way) on and off site.

The information from the latest topographical survey has been used to create the ground model in the form of a surface Triangulated Irregular Network (TIN) to represent the existing topographical features within the site.

The ground model for the site has been developed using AutoCAD Civil 3D. The ground model was exported into the .xyz format, and the .xyz data has been gridded and converted into an .ASC grid.

The ground terrain model was used in combination with the 1m resolution LiDAR data to produce a representation of the land topography within the model code region. The model is based on a cell size of 5m, and therefore the 1m resolution DTM is considered sufficient as a basis for this study. It is worth noting that the original model comprises of a 20m grid size.

4 Model Development

The River Great Ouse, which runs approximately 100m to the east of the site at its nearest point, was represented using the ESTRY component of the model. It was considered appropriate to apply gully lines to represent the ordinary watercourse at Hemingford Meadow, outside the site. Gully lines characterising the watercourse have been samples from the latest channel survey data. Culvert structures have been represented using ESTRY.

The breach location considered for this exercise is located approximately 40m to the east of the site; breach parameters were selected based on the guidance available from the EA's Anglian Region for assessing the extent of flooding if defences breach. In line with the EA's Anglian Region guidance for a breach of an earth embankment, it was assumed that the breach extends to ground level at the landward toe of the embankment. The breach parameters from the EA Anglian Region Guidance Note is summarised in Table 1 below.

Table 1: Breach parameters used in the breach modelling assessment

Breach Location	Landward Ground Level (m AOD)	Defence Type	Breach Width (m)	Time to Close (hours)
531202, 270752	5.28m AOD	Earth Embankment	40	30

The breach modelling was undertaken for 'open' condition. The 'open' condition represents the breach occurring with embankment crest level lowered to ground level. As a sensitivity the breach modelling as also carried out for 'peak' condition. 'Peak' condition represents the embankment failing at the peak of the flow hydrograph.

5 Land Classification

The roughness values for both in-channel and floodplain features have been kept the same as the original model.

Table 2 below shows the applied roughness coefficient values within the 2D domain.

Table 2: Manning's n Values for land Classification

Land Type	Manning's n Value
General Surface/Roadside	0.05
Buildings	0.30
Glasshouse	0.3
Inland water	0.035
Natural Environment	0.10
Path	0.02
Rail	0.04
Structure	0.03

6 Boundary Conditions

The hydrological input for the catchment is based on the hydrological assessment undertaken for the River Great Ouse model. The inflow into the 2D is represented by a discharge-time (QT) series, which is extracted from ISIS Cross-section GTO14400. The location of the inflow node is shown in Figure 1 below.

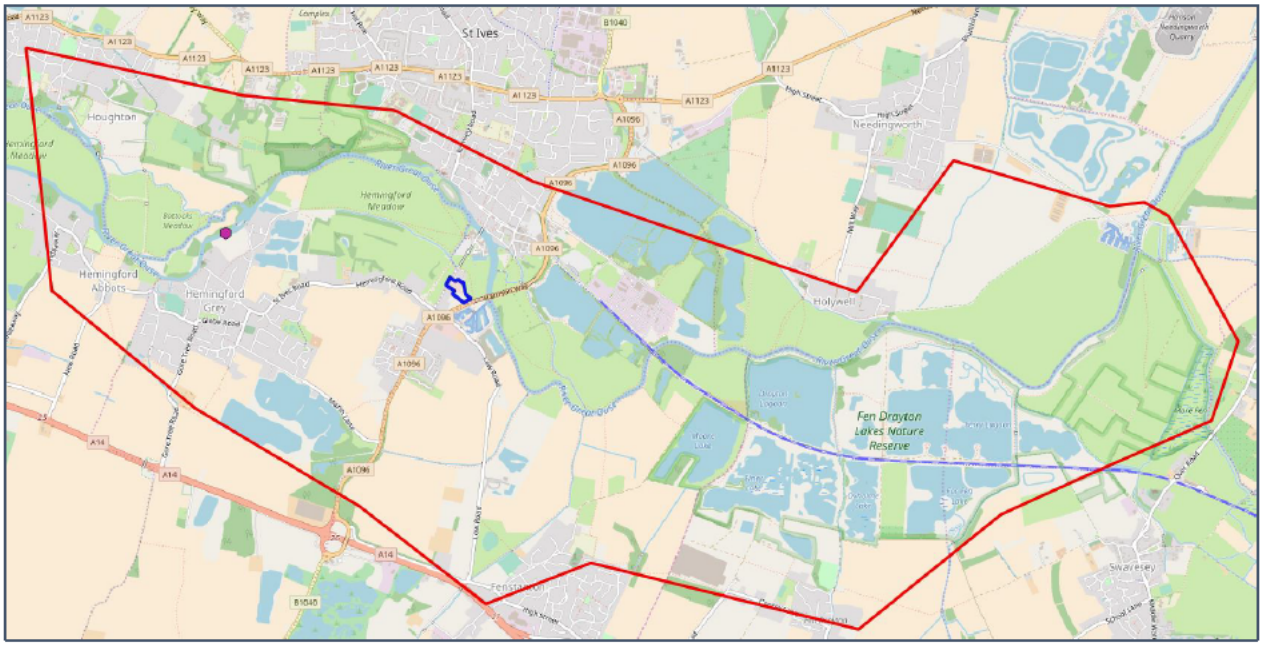
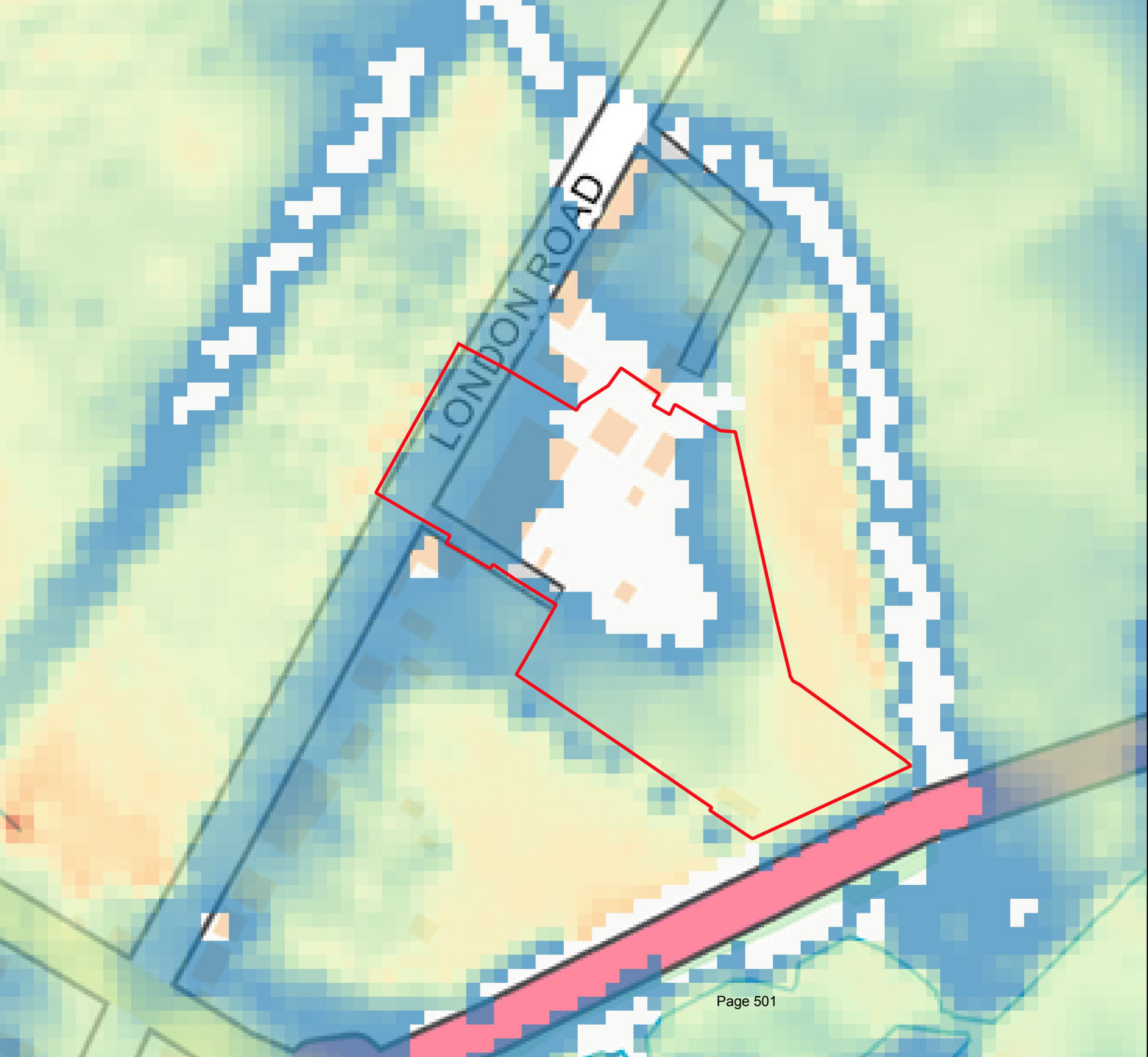


Figure 1: Model Extent

7 Climate Change

Due to the uncertainties in flood estimation and expected climate change impacts, it is required that flood flows should include an allowance for increased flow due to climate change as outlined in the NPPF. The latest guidance published in December 2016 provides updated climate change allowances and is now required for all Flood Risk Assessments (FRAs) unless a planning application has already been submitted to the local planning authority.

Following the meeting with the EA on 30 January 2018, it was agreed that the 35% climate change allowance is the most appropriate allowance for managing residual risk to the site. This is the higher central allowance based upon the development proposals at the site.



Legend

Site Boundary

Maximum Predicted Water Depth (m

- 0.25
- 0.5
- 0.75
- 1
- 1.25
- 1.5
- 1.75
- 2

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North Kiln,
Felaw Maltings,
46 Felaw Street,
Ipswich,
Suffolk IP2 8PN
Tel: 01473 231 100
Web:
www.mlmgroup.com

Client: Lochailort St Ives Ltd

Project: Former Murketts Garage, London Road, St Ives, Cambridgeshire

Figure Title: Maximum Predicted Flood Depth for 1 in 100 Year plus climate change event

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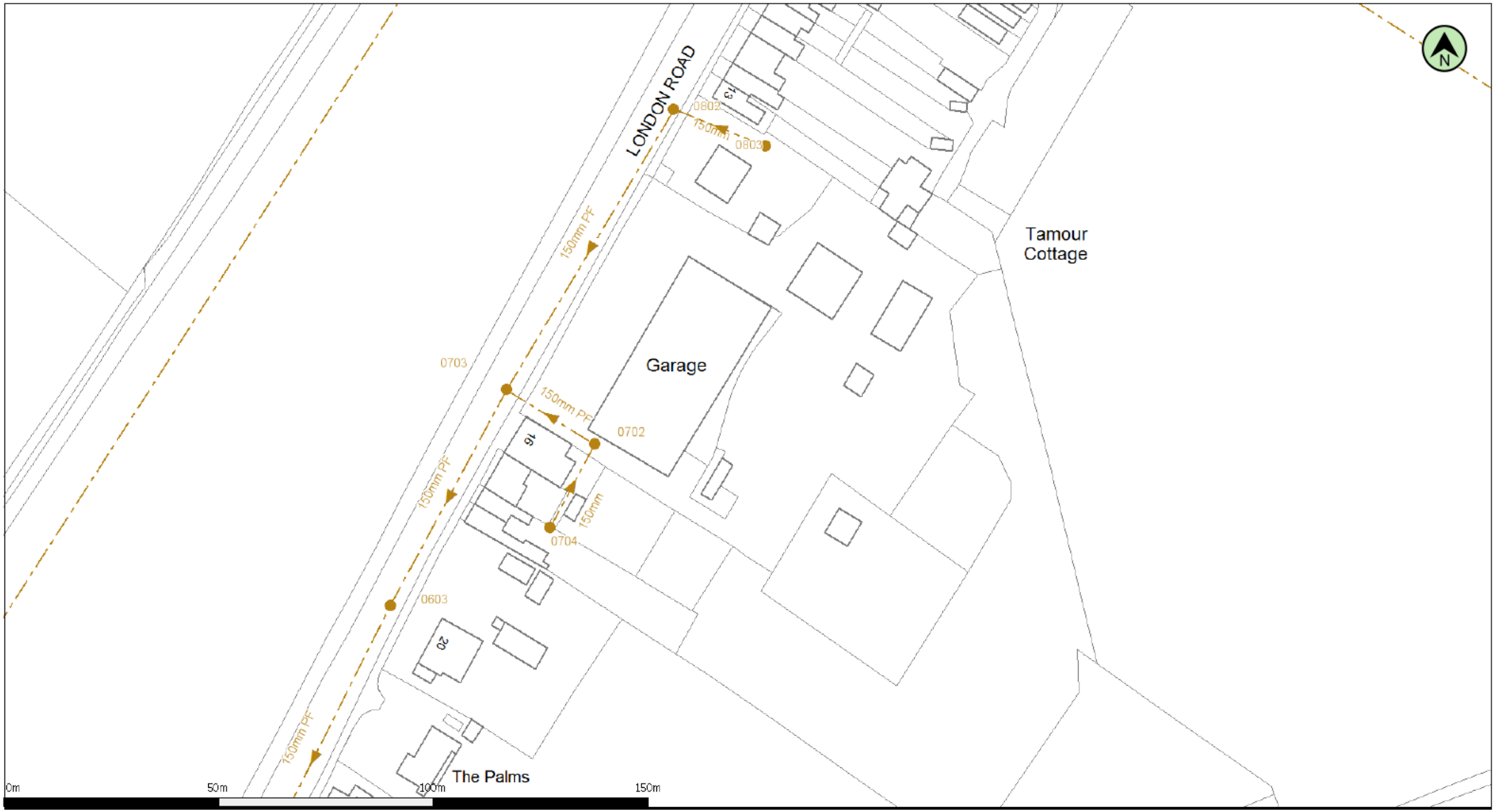
Appendix C - Anglian Water

Wastewater Plan A4 ref: 127689-2



(c) Crown Copyright and database rights 2014 Ordnance Survey 100022432 | Date: 29/01/15 | Scale: 1:1250 | Map Centre: 531093,270743 | Data updated: 02/01/15 | Our Ref: 127689 - 2 | Wastewater Plan A4

This plan is provided by Anglian Water pursuant its obligations under the Water Industry Act 1991 sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. The plan is produced by Anglian Water Services Limited from Ordnance Survey © Crown Copyright, 100022432. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

- Foul Sewer
- Surface Sewer
- Combined Sewer
- Final Effluent
- Rising Main (Colour denotes effluent type)
- Private Sewer (Colour denotes effluent type)
- Decommissioned Sewer (Colour denotes effluent type)
- Outfall (Colour denotes effluent type)
- Inlet (Colour denotes effluent type)
- Manhole (Colour denotes effluent type)
- Sewage Treatment Works
- Pumping Station

p.hodgson@subscantech.co.uk

Murketts garage

love every drop anglianwater

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0603	F	6.406	4.116	2.29
0702	F	6.55	5.31	1.24
0703	F	6.39	4.3	2.09
0704	F	-	-	-
0802	F	6.36	4.63	1.73
0803	F	-	-	-

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

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Appendix D - Surface Water Drainage Strategy

Brownfield Calculations

MLM. Group	Project	**Former Murketts Garage, St Ives, Cambridge**		Made CB	Ref 618862
	Section	**Brownfield Run-off**		Checked JRC	Sheet No. 1 of 1
	Rev	Date	Description	Made	Checked

Ref.	Calculation	Output

1. Brownfield Run-off Calculation

Based on the Modified Rational Method the current discharge rate from the site for the 100%, 3.3% and 1% annual exceedance probability (AEP) events (1, 30 & 100 year) can be calculated as:

Q = 3.61 CiA

C = Volumetric run-off co-efficient	0.9	
i = Rainfall intensity	see below	mm / hr
A = Contributing Area	1.070	ha

Rainfall intensity taken from MicroDrainage Rainfall Generator

100%	1.190	mm / hr
3.3%	2.499	mm / hr
1%	3.194	mm / hr

Discharge rate

100%	4.137	l / s
3.3%	8.688	l / s
1%	11.104	l / s

T +44 1473 231 100
A North Kiln, Felaw Maltings
46 Felaw Street
Ipswich, IP2 8PN

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Former car showroom, London Road, St Ives (SI6)				
OSNGR: 531115,270724	Area: 1.22ha		Brownfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 52%	**FZ2** 48%	**FZ1** 0%

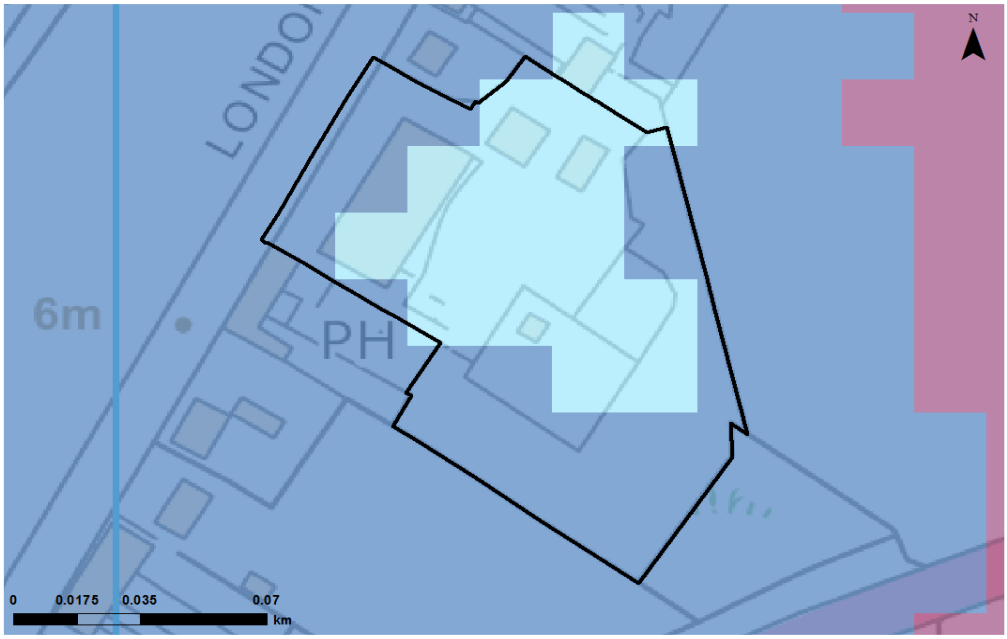
Sources of flood risk:

The whole of the site is located with the Flood Zones. The higher risk (Flood Zone 3a) is located around the boundary of the site, with the lower risk (Flood Zone 2) towards the centre.
The site is shown to not be affected by surface water flooding.

Exception Test Required?

Yes, if More Vulnerable and Essential Infrastructure development is located in FZ3a and for Highly Vulnerable development located in FZ2.
Highly Vulnerable infrastructure should not be permitted within FZ3a

Flood Zone Map



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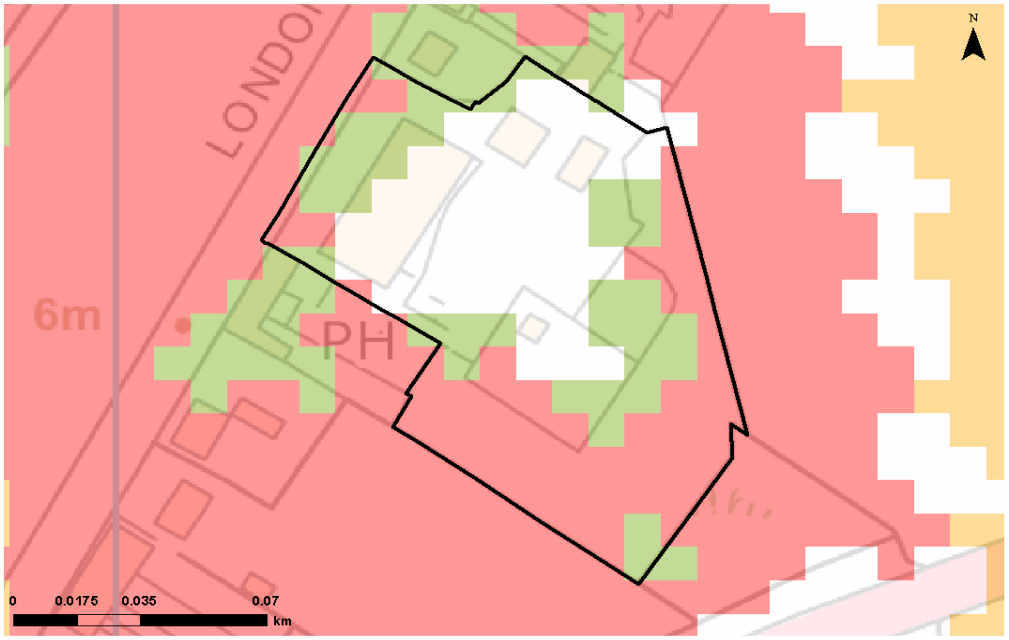
Potential development location
Council boundary
Flood Zone 3b
Indicative Extent of Flood Zone 3b
Flood Zone 3a
Flood Zone 2

Climate Change Map



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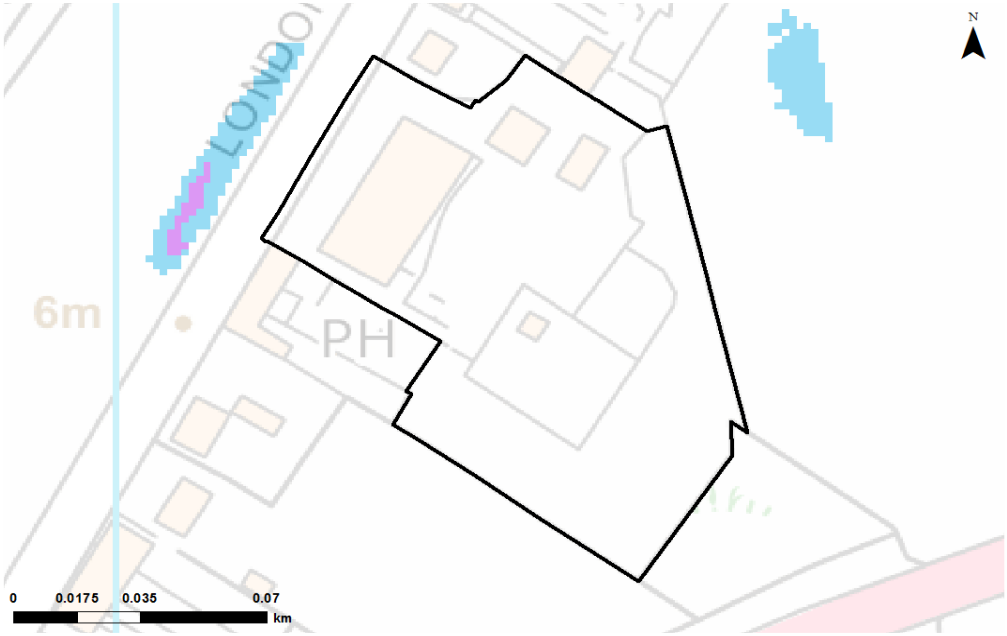
Climate change (2080s allowances)

Strategic Site boundary
Borough boundary
Central
Upper End
Higher Central

Surface Water Map



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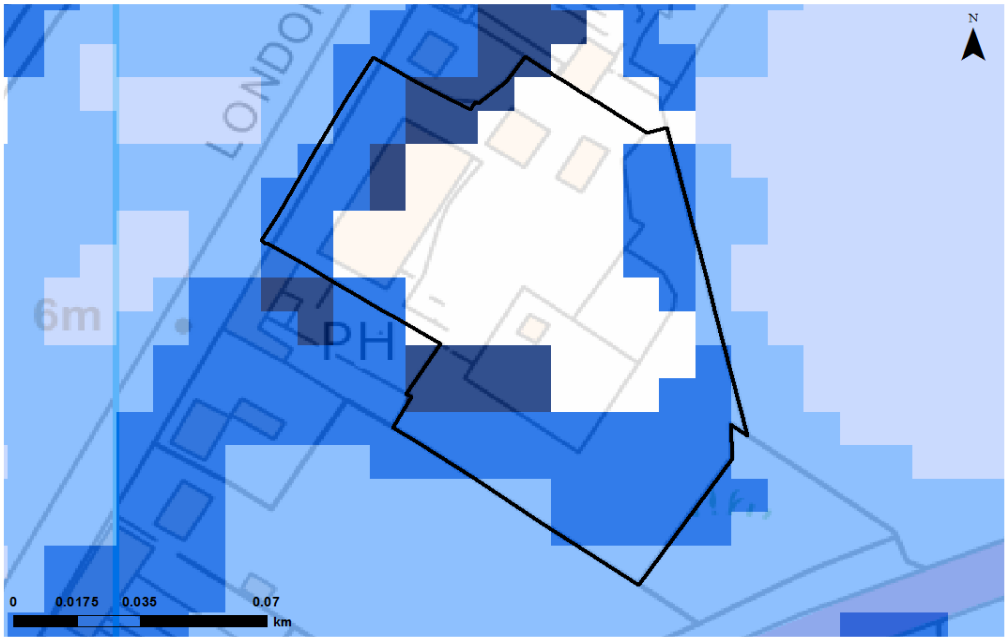
Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Depth Map - fluvial flooding (1% Annual exceedance probability)



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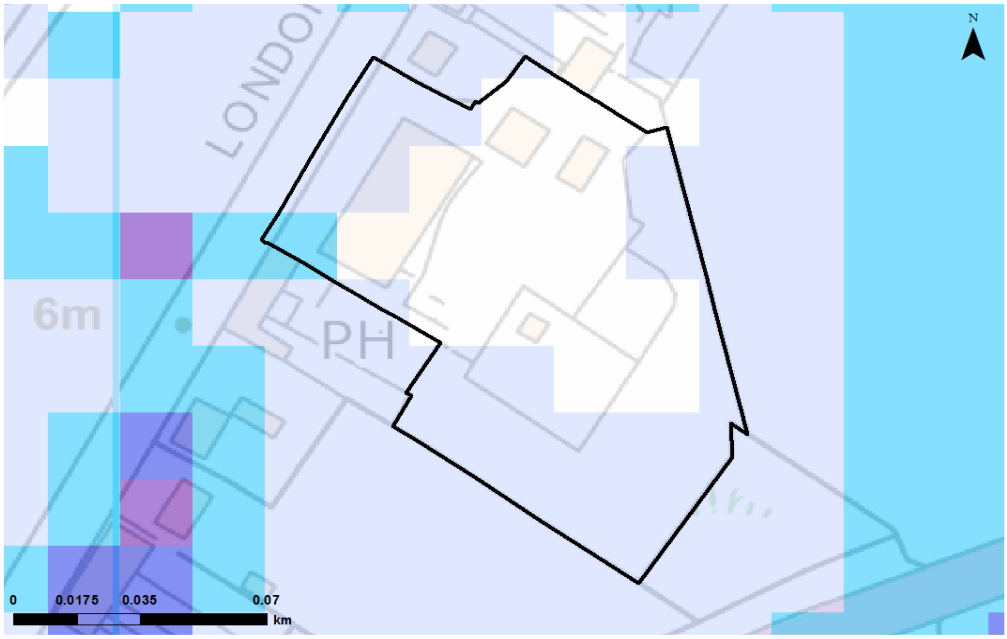
Potential development location
Council boundary

Depth (m)
0 - 0.10
0.10 - 0.50
0.50 - 1.00
1.00 - 1.50
1.50 - 2.00
2.00 - 2.50
2.50 - 3.00
3.00 - 3.50
3.50 - 4.00
>4.00

Velocity Map - fluvial flooding (1% Annual exceedance probability)



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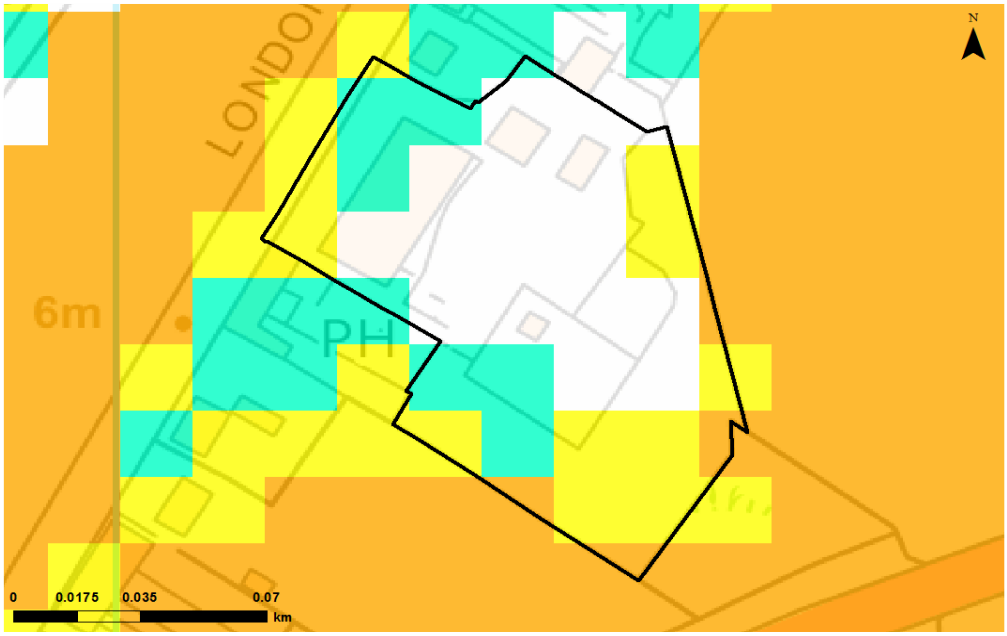
Potential development location
Council boundary

Velocity (m/s)
0 - 0.2
0.2 - 0.5
0.5 - 1.0
1.0 - 2.0
> 2.0

Hazard Map - fluvial flooding (1% Annual exceedance probability)



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Potential development location
Council boundary

Hazard Rating

Very low hazard - caution
Danger for some
Danger for most
Danger for all

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Mapping suggests that permeable paving may have to use non-infiltrating systems given the poss ble risk both to and from groundwater.
Infiltration		Mapping suggests that there is a high risk of groundwater flooding at this location, therefore it is possible infiltration techniques will not be suitable. This should be confirmed via site investigations to assess the potential for infiltration. If possible, proposed SuDS should be discussed with relevant stakeholders (LPA, LLFA and EA) at an early stage to understand possible constraints given that the site is located with a Source Protection Zone.
Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner may be required to prevent the egress of groundwater and if there are any contamination issues.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner may be required to prevent the egress of groundwater and if there are any contamination issues.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows. A liner may be required to prevent the egress of groundwater and if there are any contamination issues.

Drainage strategies should demonstrate that an appropriate number of treatment stages have been delivered. This depends on the factors such as the type of development, primary source of runoff and likelihood of contamination. Guidance should be sought from the LLFA and other guidance documents such as the CIRIA SuDS Manual (C753).

The site is located within a Source Protection Zone. As such, infiltration techniques should only be used where there are suitable levels of treatment, although it is possible that infiltration may not be permitted. Proposed SuDS should be discussed with relevant stakeholders (LPA, LLFA and EA) at an early stage to understand possible constraints

Flood Defences:

The site is protected by a combination of Environment Agency and Local Authority owned embankments which have 1% AEP standard of protection. The condition of the defences ranges between fair and good.

Emergency Planning:

This site is covered by the St Ives Flood Warning Area.

Access & Egress:

Access to the site is via London Road. In the immediate proximity of the site, this road is affected by fluvial flooding, flooding at the 1% AEP event. North of the site the road is shown to be within the Functional Floodplain. Development will need to ensure plans are in place for the evacuation of occupiers of the site in the event of a flood; should evacuation not be possible, development may need to consider the provision of safe refuge.

Climate Change:

Modelling shows little difference in the extent of the 1% AEP event when the 2080s Central, Higher Central and Upper End climate change allowances are applied. However, the depths of flooding may increase.

Implications for Development:

Use of the Sequential Approach is limited due to the whole of the site being covered by Flood Zones 2 and 3; therefore the amount and type of development for the site may be restricted.
Given the whole of the site is within flood zone 3 and 2 flood compensation will be required on a level for level volume for volume basis for any proposed loss of floodplain. Therefore land within the vicinity and outside the proposed site may be required for flood compensation, see section 8.3.4 of SFRA main report. Prospects for effective mitigation would need to be established before taking the site forward.
The site is afforded some protection from flood embankments. These defences have a 1% AEP standard of protections; however, there is still a residual risk of flooding should the defence fail (breach). There is also the potential for the defence to overtop in the future due to climate change. Therefore, it is important that the defences in this area continue to be maintained in line with catchment policy and that any development accounts for the potential residual risk.
Safe access and egress is at risk from fluvial flooding; in order to pass the Exception Test, development will need to ensure that safe access and agress can be provided for the lifetime of the development. Development should also ensure that there is no increase in flood risk that may exacerbate safe access and egress.
Broadscale assessment of suitable SuDS has indicated a number of different types may be possible; however, given the size of the site and the proportion of the site at risk from flooding, the type of SuDS system used may be influenced by amount of land available; depending on the system used there may be an impact on the amount of land available for development and the cost of development.
The site is covered by the Environment Agency's Flood Warning Service. Given the potential access and egress issues, development may need to consider provision of safe refuge in the event of occupiers being unable to evacuate.
Given the size and location of the site, it is unlikely the site could be used to implement strategic solutions to alleviate flood risk elsewhere in the catchment.

Guidance for Developers:

Mapping in this table is based on results from the Environment Agency's Downstream Ouse 1D-2D model.
At the planning application stage, a site-specific flood risk assessment will be required if any development is located within Flood Zones 2 or 3. Where a site specific FRA has produced modelling outlines which differ from the Flood Map for Planning then a full evidence based review would be required; where this is acceptable to the EA then amendments to the Flood Map for Planning may take place.
Resilience measures will be required if buildings are situated in the flood risk area.
The peak flows on the River Great Ouse should be considered when considering drainage.
Assessment for runoff should include allowance for climate change effects.
New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
Onsite attenuation schemes would need to be tested against the hydrographs of the River Great Ouse to ensure flows are not exacerbated downstream within the catchment.
Safe access and egress will need to be demonstrated; currently access and egress is affected by surface water flooding from a 1% AEP event.
New development must seek opportunities to reduce overall level of flood risk at the site, for example by:

- Reducing volume and rate of runoff
- Relocating development to zones with lower flood risk
- Creating space for flooding.
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development and consider using Flood Zones 2 and 3 as public open space.

Consultation with the Local Authority and the Environment Agency should be undertaken at an early stage.

LOCHAILORT ST IVES LIMITED

Andy Moffat
Huntingdonshire District Council
Pathfinder House
St Mary's Street
Huntingdon
Cambridgeshire **PE29 3TN**

Tuesday 22nd January 2019

Dear Andy

Huntingdonshire Local Plan to 2036: Consultation on the Proposed Main Modifications
Former *Murketts* car dealership, London Road, St Ives

Thank you for your notification that the Local Plan Inspector has recommended a number of modifications are made to the submitted *Huntingdonshire Local Plan to 2036* prior to its adoption by the Local Planning Authority.

We do not accept that the deletion of site allocation SI4 (*Former Car Showroom, London Road, St Ives*) is necessary to make the plan sound and consequently, we **object** to proposed main modification 29.

Flood risk
The Environment Agency has constructed modern flood defences which protect a large part of St Ives from flooding, including site SI4. These newly-built defences have been robustly constructed to modern standards and are maintained by the Environment Agency. Consequently, site SI4 should be considered to be in Flood Zone 1, where neither the sequential nor the exception test applies. Having correctly adopted this floor risk classification, the public benefits of the site's regeneration manifestly weigh in substantial favour of its allocation for residential redevelopment.

This is a contaminated brownfield site which has lain derelict for ten years, causing harm to the character and appearance of the Conservation Area. Both the current and the previous owners have been approached on several occasions asking whether the site can come forward for redevelopment.

Given the unusual site-specific demolition and remediation costs, as well as the constraints posed by the high and medium pressure gas mains crossing the site (which preclude any larger-footprint development), the only viable reuse is for residential development. No other site would realise the substantial public benefits of the site's regeneration and consequently, should the Local Authority consider that the Sequential Test ought to be applied, this is clearly met. We would cite planning permission 18/02239/FUL (*Former ATS garage, 22 East Street, St Ives)* as a local example of where similar regeneration benefits in a flood-defended location were such that the Sequential Test was met. The Local Planning Authority's correct assessment of the Sequential Test applies equally to site allocation SI4 as it did to the East Street site.

In terms of the Exception Test, the enclosed *Flood Risk Assessment* and separate *Drainage Strategy* documents have been submitted in support of recent planning application reference 18/02726/FUL on the SI4 site. Both documents have been prepared following extensive liaison with the Environment Agency, who have confirmed (as attached) that both the methodology and the adopted strategy are appropriate. Consequently, the Local Planning Authority can also be confident that the Exception Test has been passed at site SI4.

Summary
There is no justification or requirement for site allocation SI4 to be deleted in order to make the Plan sound. To the contrary, the public benefits of the site's regeneration for residential development – the only practical and viable reuse – weigh heavily in favour of the site's continued allocation.

The enclosed detailed Flood Risk Assessment and Drainage Strategy documents were not before the Inspector when he recommended that site allocation SI4 be deleted, and neither had planning application 18/02726/FUL been submitted. In light of this additional information, the Local Planning Authority is clearly at full liberty to set aside the Inspector's proposed main modification in respect of site allocation SI4, and reinstate the allocation accordingly. **We would request this course of action.**

We would be happy to discuss the content of this letter with Officers if this would assist.

Kind regards

Yours sincerely

[redacted]

James Croucher MTP MRTPI
Planning Director

Enclosures: as set out