

Cambridge Local Plan 2014 Site Allocations

Flood Risk Sequential Test Evidence Report

March 2014



CONTENTS	PAGE
1. INTRODUCTION	3
2. NATIONAL PLANNING POLICY ON FLOOD RISK	3
3. SEQUENTIAL TEST	3
4. THE EXCEPTION TEST	4
5. BACKGROUND EVIDENCE	6
6. PLANNING CONTEXT AND KEY ASSUMPTIONS	7
7. APPLYING THE SEQUENTIAL AND EXCEPTION TESTS	7
8. SITE OPTIONS ON THE EDGE OF CAMBRIDGE	9
9. SITES OPTIONS WITHIN CAMBRIDGE AND AT IDENTIFIED FRINGE SITES	10
10. CONCLUSIONS	35

1 INTRODUCTION

- 1.1 Cambridge City Council is currently producing a new Local Plan for Cambridge, which will provide the framework for how the development needs for Cambridge will be met to 2031. In addition to setting policies to guide development proposals, it also allocates sites for a range of uses, from housing to employment land. This report sets out the approach to integrating the requirements of the Flood Risk Sequential Test into the assessment of all of the sites considered for allocation as part of the Local Plan Review.

2 NATIONAL PLANNING POLICY ON FLOOD RISK

- 2.1 The National Planning Policy Framework (NPPF) advises that “Local Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape” (paragraph 99). It goes on to advise that “Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.....Local Plans should apply a sequential, risk-based approach to the location of development to avoid where possible flood risk to people and property and manage any residual risk taking account of the impacts of climate change, by:
- a. Applying the Sequential Test;
 - b. If necessary, applying the Exception Test;
 - c. Safeguarding land from development that is required for current and future flood management;
 - d. Using opportunities offered by new development to reduce the causes and impacts of flooding; and
 - e. 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.”
- (paragraph 100, NPPF, 2012)

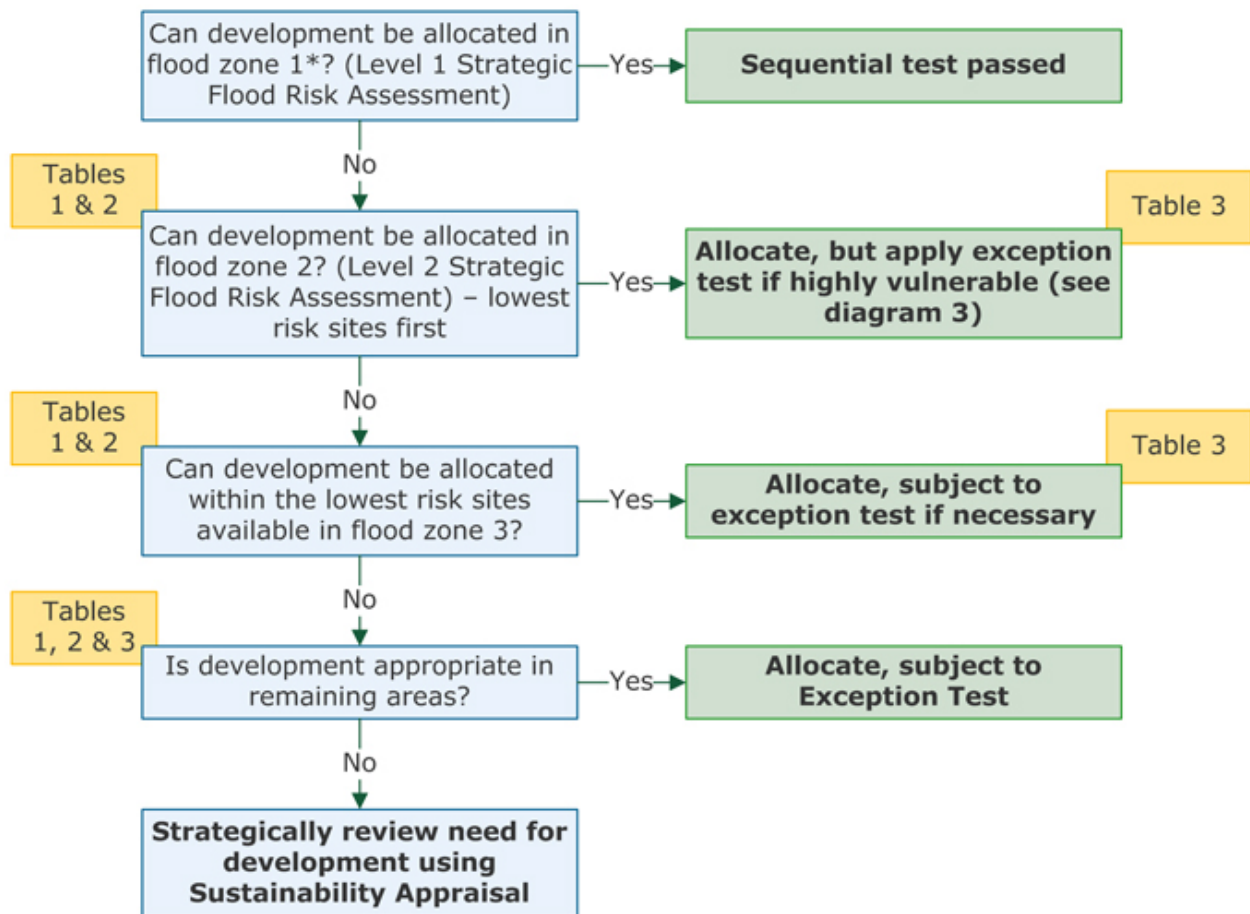
The Sequential Test is a key component of the hierarchical approach to avoiding and managing flood risk as shown in Figure 1.1 below. In undertaking the Sequential Test for its site allocations, the Council has had regard to the advice of the NPPF and the National Planning Practice Guidance, as well as the Cambridge and South Cambridgeshire Level 1 Strategic Flood Risk Assessment (2010), the Cambridge and Milton Surface Water Management Plan (2011) and the Cambridge SUDs Design and Adoption Guide (2010).

3 SEQUENTIAL TEST

- 3.1 The Sequential Test is a decision making tool designed to ensure that areas at little or no risk of flooding are developed in preference to areas of higher risk. The NPPF advises that “the aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. Development should not be allocated or

permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding” (paragraph 101).

Figure 1.1: Flood Risk Management Hierarchy (taken from the National Planning Practice Guidance)



3.2 The National Planning Practice Guidance notes that Strategic Flood Risk Assessments should be used to “apply the Sequential Test and, where necessary, the Exception Test when determining land use allocations”. It goes on to note that where land outside flood risk areas cannot appropriately accommodate all the necessary development in an area, it may be necessary to increase the scope of the Strategic Flood Risk Assessment to provide the information necessary for application of the Exception Test where appropriate.

3.3 The Level 1 Strategic Flood Risk Assessment provides the basis for the Council in applying the Sequential Test to the allocation of proposals sites as part of the Local Plan Review. Further information in relation to surface water flooding has been provided by the Cambridge and Milton Surface Water Management Plan.

4 THE EXCEPTION TEST

4.1 The NPPF allows the application of the Exception Test by local planning authorities where, following the application of the Sequential Test, it is not possible, consistent

with wider sustainability objectives, for development to be located in zones with a lower risk of flooding. The Exception Test therefore provides a method of managing flood risk while still allowing development to occur. The point at which the Exception Test is applied varies dependent on the level of flood risk and the type of development proposed, as summarised in Table 1 below.

- 4.2 There are two elements to the Exception Test, both of which need to be passed:
- a. It must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, informed by a Strategic Flood Risk Assessment where one has been prepared; and
 - b. A site-specific flood risk assessment (FRA) 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 reducing flood risk overall.

Table 1: Flood risk vulnerability and flood zone ‘compatibility’ (adapted from the National Planning Practice Guidance)

Flood risk vulnerability classification	Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood zone	Zone 1	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓
	Zone 3a+	Exception Test required	✓	x	Exception Test required
	Zone 3b functional floodplain*	Exception Test required*	✓*	x	x

- Key:**
- ✓ Development is appropriate
 - x Development should not be permitted
 - † In flood zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.
 - *In flood zone 3b) (functional floodplain) essential infrastructure that has to be there and has passed the Exception Test, and water compatible uses, should be designed and constructed to:
 - Remain operational and safe for users in times of flood;
 - Result in no net loss of floodplain storage;
 - Not impede water flows and not increase flood risk elsewhere.

5 BACKGROUND EVIDENCE

- 5.1 The Council has made reference to three key sources of evidence base in applying the Sequential Test and, where necessary, the Exception Test, to potential site allocations:
- The Cambridge and South Cambridgeshire Level 1 Strategic Flood Risk Assessment (2010);
 - The Cambridge and Milton Surface Water Management Plan (2011); and
 - Cambridge SUDs Design and Adoption Guide (2010) (in so far as it relates to the reduction in run-off from brownfield sites and sites where surface water drainage has been identified as requiring mitigation).

The Cambridge and South Cambridgeshire Level 1 Strategic Flood Risk Assessment

- 5.2 A Level 1 Strategic Flood Risk Assessment was undertaken by consultants WSP, covering the administrative areas of Cambridge City Council and South Cambridgeshire District Council. This document supercedes the previous 2006 Strategic Flood Risk Assessment undertaken by Mott MacDonald for the City Council, as well as that prepared for South Cambridgeshire District Council in 2005. The Assessment used the Environment Agency's up to date Flood Risk and Flood Hazard Mapping provided in their River Cam Mapping study, and will be updated once the Agency's River Ouse Mapping Study has been completed.

The Cambridge and Milton Surface Water Management Plan

- 5.3 In applying the Sequential Test and Exception Test to the assessment of potential site allocations, consideration has also been given to the Cambridge and Milton Surface Water Management Plan, which provides further detail on the risk of surface water flooding in Cambridge. This document was prepared by Hyder Consulting (UK) Limited and Edenvale Young Associates Ltd, on behalf of the Cambridgeshire Flood Risk Management Partnership, which comprises all of the flood risk authorities in Cambridgeshire, including Cambridgeshire County Council, Cambridge City Council, South Cambridgeshire District Council, the Environment Agency and Anglian Water.
- 5.4 This document provides a variety of information related to the risks of surface water flooding, including:
- Mapping of historical surface water flood incident data;
 - Mapping of surface water influenced flooding locations; and
 - Identification of surface flooding wetspot areas (a wetspot is defined as being an area susceptible for Surface Water flooding following analysis of Modelled Surface Water outputs or historical records).
- The use of this information has allowed for a more detailed assessment of the risks of surface water flooding to potential site allocations.

6 PLANNING CONTEXT AND KEY ASSUMPTIONS

- 6.1 The Cambridge Local Plan 2014 plans to provide for 14,000 new homes and seeks to ensure that sufficient land is available to allow the forecast of 22,100 new jobs in Cambridge by 2031. The growth of Cambridge should also be seen against the growth of South Cambridgeshire District Council, whose administrative area surrounds that of the City Council. South Cambridgeshire District Council are planning for 19,000 new homes and 22,000 new jobs by 2031. Working with South Cambridgeshire District Council, the distribution of this growth takes the following sequential approach:
1. The existing urban area of Cambridge;
 2. Within the defined fringe sites on the edge of Cambridge;
 3. Within the small-scale Green Belt sites proposed to be released from the inner Green Belt, four of which are in the city;
 4. Within existing and newly identified new settlement locations at Cambourne, Northstowe, Bourn Airfield and Waterbeach; and lastly
 5. Identified villages in South Cambridgeshire.
- 6.2 This Sequential Test Report considers those potential site allocations that were assessed within the first three steps of the development hierarchy (existing urban area, defined fringe sites and small-scale Green Belt sites).

7 APPLYING THE SEQUENTIAL AND EXCEPTION TESTS

- 7.1 The assessment of sites for potential allocation was carried out through the use of a site assessment pro forma, which was developed to fully integrate the Sustainability Appraisal process and assessment of flood risk into the assessment of sites. The criteria in the pro forma take into account the social, environmental and economic sustainability themes and objectives identified in the Council's Sustainability Appraisal Scoping Report¹, with advice sought from the Council's Sustainability Appraisal consultants URS. The pro forma also includes planning and deliverability criteria, which are important to ensure that the Local Plan is deliverable.
- 7.2 A number of sources were used to arrive at an initial list of site options including:
Sites within Cambridge and identified fringe sites:
- Sites allocated in the existing adopted Cambridge Local Plan 2006, associated Area Action Plans, and Supplementary Planning Documents, which have not been developed;
 - Sites identified in the following studies:
 - Strategic Housing Land Availability Assessment (SHLAA) May 2012 and May 2013;
 - Employment Land Review 2007 and 2012 update;
 - Cambridge Sub Region Retail Study 2008;
 - Gypsy and Traveller Provision in Cambridge: Site Assessment;

¹ Note that for the appraisal of sites on the edge of the city, the pro forma was developed jointly with South Cambridgeshire District Council to take into account both authorities Sustainability Appraisal Objectives.

- Cambridge Hotel Futures: Headline Findings Issues and Options Report, April 2012;
- Inner Green Belt Boundary Study 2001; Green Belt Study 2002, 2012 Green Belt Reappraisal;
- Other documents e.g. those produced by Cambridgeshire Horizons.
- Any sites and site boundaries identified by the Council within the Issues and Options Consultation (June 2012);
- Any sites subsequently submitted by landowners and developers or their agents in their responses to the Council's Issues and Options consultation June 2012;
- Any sites identified by the Council's own internal directorates, other Council's statutory government agencies, and statutory undertakers.

Sites on the edge of Cambridge:

- Developer's site boundaries received from the 'call for sites' for the Strategic Housing Land Availability Assessments (SHLAAs) carried out by both Cambridge City Council and South Cambridgeshire District Council; and
- Additional sites identified through the 2012 Inner Green Belt Review as fulfilling Green Belt purposes to a lesser degree.

7.3 Sections 8 and 9 below outline the Sequential Test approach taken for all those sites that have been proposed for allocation. Where it has been necessary to apply the Sequential Test, those sites that were considered for allocation for a particular use but were subsequently rejected are included. Sites that have been included in the Local Plan but which already have planning permission are considered in this report, although it should be noted that they will have had to demonstrate compliance with the flood risk Sequential Test as part of the planning application process, and where appropriate provide suitable mitigation measures where flood risk has been identified as being an issue.

8 RESULTS OF THE SEQUENTIAL TEST: SITE OPTIONS ON THE EDGE OF CAMBRIDGE

Table 2: Site Assessments for small-scale Green Belt sites put forward for allocation

Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
CC930	GB1: Land North of Worts' Causeway	7.33 ha	Residential	Zone 1	The site is within Flood Zone 1. There is a medium risk of surface water flooding as runoff contributes to surface water flooding of the existing built environment. Development could potentially offer a solution and flood risk management benefit.
CC929	GB2: Land South of Worts' Causeway	6.8 ha	Residential	Zone 1	The site is within Flood Zone 1. There is currently a fairly significant amount of surface water flooding towards the south of the site. Careful mitigation required.
CC933	GB3: Fulbourn Road South	2.3 ha	Employment	Zone 1	The site is within Flood Zone 1 and has no issues with surface water flooding. Development should be mindful of potential flow routes from adjacent high land.
CC932	GB4: Fulbourn Road West 2	1.4 ha	Employment	Zone 1	The site is within Flood Zone 1 and has no issues with surface water flooding. Development should be mindful of potential flow routes from adjacent high land.
Sites included in the South Cambridgeshire Local Plan					
SC300	GB5: Fulbourn Road East	6.92 ha	Employment	Zone 1	The site is within Flood Zone 1 and has no issues with surface water flooding. Development should be mindful of potential flow routes from adjacent high land.
SC298 (part of)	GB6: Land south of the A14 and west of Cambridge Road	12.6 ha	Residential	Zone 1	The site is within Flood Zone 1. The site is subject to surface water flood risk but is capable of mitigation.

8.1 Flood Zone 1: The sites in Table 2 above fall entirely within Flood Zone 1 and can be allocated for residential and employment related development within the sites on the edge of Cambridge stage in the development sequence without the need to consider alternatives from a flood risk point of view.

9. RESULTS OF THE SEQUENTIAL TEST: SITE OPTIONS WITHIN CAMBRIDGE AND IDENTIFIED FRINGE SITES

Table 3: Site Assessments for residential sites within Cambridge and identified fringe sites put forward for allocation

Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
Residential Site Options within Cambridge					
R1 (Local Plan 2006 allocation 5.17)	R1: 295 Histon Road	0.711 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are significant surface water issues for the whole of the site but should be capable of mitigation.
R2 (Local Plan 2006 allocation 5.07, includes SHLAA site CC312)	R2: Willowcroft, Histon Road	1.59 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water but capable of mitigation.
R3 (Local Plan 2006 allocation 5.05)	R3: City Football Ground	1.714 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R4 (Local Plan 2006 allocation 5.15)	R4: Henry Giles House, Chesterton Road	0.775 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are surface water issues for the whole site, possible to mitigate with careful consideration to site layout.
R5 (includes SHLAA site 906)	R5: Camfields Resource Centre and Oil Depot	0.858 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1 although is adjacent to Flood Zone 3. There is a fairly significant amount of surface water flooding on the site. Careful mitigation required.
R7 (Local	R7: The	2.796	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but

Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
Plan 2006 allocation 5.02)	Paddocks, Cherry Hinton Road	ha			capable of mitigation.
R8 (SHLAA Sites CC087 and CC081)	R8: 149 Cherry Hinton Road	0.76 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R9 (Local Plan 2006 allocation 5.09)	R9: Travis Perkins, Devonshire Road	1.229 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R10 (SHLAA Site CC102)	R10: Mill Road Depot and adjoining properties, Mill Road	2.7 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R11 (SHLAA Site CC629)	R11: Horizons Resource Centre, Coldhams Lane)	0.82 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R12 (SHLAA Site CC922, part of Local Plan 2006 allocation 5.14)	R12: Ridgeons, 75 Cromwell Road	3.27 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.

Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
R14 (includes SHLAA Site CC583 and Local Plan 2006 allocation 5.06)	R14: BT Telephone Exchange and Car Park, Long Road	2.012 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R16 (SHLAA Site CC905)	R16: Cambridge Professional Development Centre, Paget Road, Trumpington)	1.49 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
R17 (SHLAA Site CC916)	R17: Mount Pleasant House	0.57 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There is a fairly significant amount of surface water flooding towards the west of the site. Careful mitigation required.
M4 (Local Plan 2006 allocation 5.12)	M4: Police Station, Parkside	0.50 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There is a minor to moderate amount of surface water flooding towards the centre of the northern site. Careful mitigation required.
R22	R40: Land north of Teversham Drift	8.79 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There is some risk of surface water flooding in the north west corner of the site. Careful mitigation required.
R23	R41: Land north of Coldham's	1.26 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.

Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
	Lane				
	R42a: Clay Farm, South of Long Road	60.69 ha	Residential	Zones 1, 2 and 3	This site falls within Flood Zones 1, 2 and 3. The site was previously allocated for development in the Cambridge Local Plan 2006 and has subsequently been granted outline planning consent for residential development, with reserved matters applications submitted/approved for a number of parcels within the site. As part of the outline planning permission the site was subject to site specific flood risk assessment, demonstrating the development will be safe for its lifetime in accordance with the requirements of the NPPF and the National Planning Practice Guidance. Flood risk issues have been mitigated by the developer's proposals through masterplanning, layout of the development and through the use of sustainable drainage and raising land above areas of flood risk. Development has been masterplanned to avoid Flood Zone 3, and as in accordance with diagram 2 in the Sequential Approach section of the National Planning Practice Guidance, as development itself is allocated in Flood Zone 1, the sequential test can be deemed to have been passed.
	R42b: Trumpington Meadows	15.50 ha	Residential	Zone 1	This site lies entirely within Flood Zone 1. This site already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate.
	R42c: Glebe Farm 1	8.79 ha	Residential	Zone 1	This site lies entirely within Flood Zone 1. This site already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate.
R15 (Local Plan 2006 Allocation 9.13 – part of)	R42c: Glebe Farm 2	1 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
	R42d: Bell School, Babraham Road	7.61 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. This site already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate.

Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
	R43: NIAB 1	52.87 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. This site already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate.
	R44: Betjeman House	1.17 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues capable of mitigation.
	R45: Land north of Newmarket Road	1.27 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. Flood Risk was also considered as part of the Cambridge East Area Action Plan process, from which this allocation is brought forward. At the time of preparing the Proposed Submission Local Plan, developers were in the process of preparing an outline planning application for this site and land adjacent to the site in South Cambridgeshire. This will include a Site Specific Flood Risk Assessment.

- 9.1 Flood Zone 1: The majority of the sites in table 3 above fall within flood zone 1 and can be allocated for primarily residential development within Cambridge.
- 9.2 Flood Zones 2 and 3: One of the sites being carried forward from the existing Local Plan, the Clay Farm site (R42a) does have areas of land within it that fall within Flood Zones 2 and 3, although the majority of the site falls within Flood Zone 1. As such it has been necessary to apply both the Sequential Test and the Exception Test. Other sites were considered for allocation for residential development both within Cambridge and on the edge of Cambridge, but have been rejected for the reasons detailed in Tables 4 and 5 below. While some of these sites have been ruled out partly for flood risk reasons, for the most part, these sites have been rejected for reasons other than flood risk, for example some sites have already been developed in their entirety, or allocation would cause significant harm to the specific purposes of the Cambridge Green Belt.
- 9.3 The Clay Farm site was allocated for development as part of the Cambridge Local Plan 2006. It was one of a number of sites on the edge of Cambridge that were released from the Green Belt in order to meet the housing need identified in the 2006 Plan and to help redress the balance between housing and jobs in the city. As the site has only been partially developed, it continues to play an important role in meeting the objectively assessed housing need set out in the Cambridge Local Plan 2014.

9.4 Outline planning permission was granted for the development in 2010, with the outline application accompanied by a site specific flood risk assessment, as required by the Exception Test. As such, the Clay Farm site is considered to pass both the Sequential Test and Exception Test as:

- Following a thorough assessment of other sites for housing development, it has been shown that there are insufficient sites suitable for development that lie entirely within Flood Zone 1 to meet Cambridge’s objectively assessed housing need of 14,000 homes by 2031;
- The outline planning application for the site was accompanied by a Site Specific Flood Risk Assessment, demonstrating that the site would be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere and, where possible, reducing flood risk overall;
- Land on the site within Flood Zone 3 has been developed for water compatible uses including amenity greenspace and balancing ponds;
- Mitigation measures have been put in place to reduce the risk of flooding to the development itself and areas downstream of the development from all forms of flooding. These measures include the implementation of sustainable drainage systems and the raising of land above areas of flood risk within Zone 2.
- In line with the National Planning Practice Guidance, residential development, which is classified within the ‘more vulnerable’ uses, can be considered appropriate in Flood Zone 2 subject to the implementation of appropriate mitigation measures.

Table 4: Site Assessments for Rejected Residential Sites within Cambridge

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of the Sequential Test	Reasons for Rejection
R22 (Local Plan 2006 Allocation 5.13. Milton road Infant and Junior School (former))	0.866	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are fairly significant amounts of surface water flooding towards the centre of the site. Careful mitigation will be required which could impact on the achievable site layout as a greater level of green infrastructure will be required.	Half of the site has already been developed and the remainder of the site has an extant planning consent and is less than 0.5 ha. As such it does not merit allocation.
R23 (Local	1.442	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1.	The part of the site that is not Protected

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of the Sequential Test	Reasons for Rejection
Plan 2006 Allocation 9.14). Land between 64-66 Peverel Road				There are minor surface water issues, but these are capable of mitigation through good design.	Open Space is less than 05.ha and as such does not merit allocation.
R24 Perse Playing Fields	3.642	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are no surface water issues.	<ul style="list-style-type: none"> Protected Open Space; No suitable access.
R25 Emmanuel College Playing Fields	5.266	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are minor to moderate surface water issues but these are capable of mitigation through good design, although this could impact on site layout.	<ul style="list-style-type: none"> Protected Open Space
R26 Shire Hall site, Old Police Station, Castle Mound and 42 Castle Street	2.91	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues, but these are capable of mitigation through good design.	<ul style="list-style-type: none"> The landowner has advised that the site is not available for development
R27 (Local Plan 2006 Allocation 5.01) Land off Fitzwilliam Road and Clarendon	3.04	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are some surface water issues, but these are capable of mitigation through good design.	<ul style="list-style-type: none"> Site is already under construction.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of the Sequential Test	Reasons for Rejection
Road					
R28 (Local Plan 2006 Allocation 5.03) Cromwell Road	2.44	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are fairly significant amounts of surface water flooding towards the centre of the site. Careful mitigation will be required which could impact on the achievable site layout as a greater level of green infrastructure will be required.	<ul style="list-style-type: none"> The site is mostly built out.
R29 (Local Plan 2006 Allocation 5.08) Territorial Army, Cherry Hinton Road	1.26	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are some surface water issues, but these are capable of mitigation through good design.	<ul style="list-style-type: none"> The landowner has advised that the site is not available for development.
R30 (Local Plan 2006 Allocation 5.10) The Nuffield Hospital, Trumpington Road	1.19	Residential	Flood Zones 1 and 3	The majority of the site lies within Flood Zone 1 although a small part to the west of the site lies within Flood Zone 3. There are minor surface water issues, but these are capable of mitigation through good design.	<ul style="list-style-type: none"> The landowner has advised that the site is not available for development
R31 (Local Plan 2006 Allocation 5.11) Caravan Park, Fen	0.95	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. The site is at low risk of surface water flooding.	<ul style="list-style-type: none"> The landowner has advised that the site is not available for development.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of the Sequential Test	Reasons for Rejection
Road					
R32 (Local Plan 2006 Allocation 5.16) 147 Hills Road	0.77	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. The site is at low risk of surface water flooding.	<ul style="list-style-type: none"> The site is already under construction
R33 (Local Plan 2006 Allocation 5.18) Sandy Lane	0.60	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. There are some surface water issues although these are capable of mitigation through good design.	<ul style="list-style-type: none"> The site is already under construction
R34 (Local Plan 2006 Allocation 5.19) 135 Long Road	0.43	Residential	Flood Zone 1	The site lies entirely within Flood Zone 1. The site is at low risk of surface water flooding.	<ul style="list-style-type: none"> The site has already been developed

Table 5: Site Assessments for Rejected Green Belt Sites (note sites with site number beginning with SC lie entirely within South Cambridgeshire District Council and have been included for completeness)

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Assessments of Rejected Green Belt Sites for Broad Location 1: Land North and South of Barton Road					
SC232: Land North and South of Barton Road	120.93 ha	Predominantly residential with other mixed uses	Zones 1 and 3	Extensive parts of the land north of Barton Road between the city boundary and the M11 are within Flood Zone 3. The land south of Barton Road is all within Flood Zone 1.	<ul style="list-style-type: none"> Severe impacts on the purposes of the Green Belt. Large areas of the land north of Barton Road falls within Flood Zone 3. Surface water problems on south eastern part

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
				There is also a fairly significant surface water flooding along the watercourse corridor towards Barton Road. Careful mitigation required. Surface water ponding occurs in fields to south of Barton Road. M11 is known to have flooded in October 2001 at a location immediately west of the site.	<p>of site.</p> <ul style="list-style-type: none"> • No access to high quality public transport. • Western part of site suffers from poor air quality and noise due to proximity to the M11.
CC927: Barton Road North 2	6.8 ha	Residential	Zone 2	Over 50% of the site lies within Flood Zone 2. Fairly significant surface water flooding along watercourse corridors. Careful mitigation required.	<ul style="list-style-type: none"> • Adverse impact on Green Belt purposes. • Inadequate vehicular access unless developed with adjoining sites. • No access to local facilities or high quality public transport.
CC926: Barton Road North 1	2.9 ha	Residential	Zone 2	25% of the site lies within Flood Zone 2. No surface water issues.	<ul style="list-style-type: none"> • Adverse impact on Green Belt purposes. • Inadequate vehicular access unless developed with adjoining sites. • No access to local facilities or high quality public transport. • Loss of playing fields.
CC921: Land North of Barton Road	36.87 ha	Predominantly residential with other mixed uses	Zones 2 and 3	A section in the southern corner of the site falls within Zones 2 and 3a. A large section of the eastern end of the site falls within Zone 2 with part of Bin Brook in Zone 3. Small amount of surface water flooding in a band across the centre of the site following course of a watercourse. Careful mitigation required.	<ul style="list-style-type: none"> • Significant adverse impact on Green Belt purposes. • Some fluvial and pluvial flooding; • Inadequate vehicular access unless developed with adjoining sites. • Access to local facilities limited and not accessible to high quality public transport. • Air quality worsening as a result of size of development.
CC916: Grange	44.03	Residential	Zone 1	The location lies entirely within Flood	<ul style="list-style-type: none"> • Very significant impact on Green Belt purposes.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Farm	ha			Zone 1. There is a small amount of surface water flooding towards the south of the site and where existing watercourses are present. Careful mitigation required.	<ul style="list-style-type: none"> Limited access to local facilities. The western part of the site suffers from poor air quality and noise due to proximity to the M11. Air quality worsening as a result of size of development.
SC299: Land North of Barton Road	14.14 ha	Residential and open space uses	Zone 3	Approximately 50% of the site is within Flood Zone 3. Fairly significant surface water flooding along watercourse corridor and towards Barton Road. Careful mitigation required.	<ul style="list-style-type: none"> Negative impacts on Green Belt purposes. Large areas of the site within Flood Zone 3. No access to local facilities or high quality public transport. Air quality issues as a result of proximity to the M11.
Assessments of Rejected Green Belt Sites for Broad Location 2: Playing fields off Grantchester Road, Newnham					
CC897: St Catherines Playing Field, Grantchester Road	2.71 ha	Residential	Zone 1	The location lies entirely within Flood Zone 1. There are no surface water issues.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. No evidence of landowner intention to develop. Inadequate vehicular access. Limited access to local facilities and not accessible to high quality public transport. Loss of a playing field.
CC896: Pembroke Playing Field, Grantchester Road	3.76 ha	Residential	Zone 1	The location lies entirely within Flood Zone 1. There are no surface water issues.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. No evidence of landowner intention to develop. Inadequate vehicular access. Limited access to local facilities and not accessible to high quality public transport. Loss of a playing field.
CC895: Downing Playing Field, Grantchester	4.83 ha	Residential	Zone 1	The location lies entirely within Flood Zone 1. There is a fairly significant surface water flooding issue towards the south east of the site. Careful	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. No evidence of landowner intention to develop. Inadequate vehicular access. Limited access to local facilities and not

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Road				mitigation required.	<ul style="list-style-type: none"> accessible to high quality public transport. Loss of a playing field.
CC901: Wests Renault RUFC, Grantchester Road	8.55 ha	Residential	Zone 3	Significant parts of the site lie within functional flood plain (3b) and is therefore unsuitable for development. Significant surface water flooding for the majority of the site, mitigation would be difficult due to the high risk.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant flooding problems. No evidence of landowner intention to develop. Inadequate vehicular access. Limited access to local facilities and not accessible to high quality public transport. Loss of a playing field.
Assessments of Rejected Green Belt Sites for Broad Location 3: Land West of Trumpington Road					
CC924: Land West of Trumpington Road	45.03 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There is a fairly significant surface water flooding issue towards the north of the site. Careful mitigation required.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. No evidence of landowner intention to develop. Limited access to local facilities. Air quality issues. Loss of protected open space which contributes to the character of the Southacre Conservation Area. Loss of Grade 2 Agricultural Land.
CC928: Land West of Trumpington Road amended	32.8 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There is a fairly significant amount of surface water flooding in a band across the centre of the site following a watercourse. Careful mitigation required.	<ul style="list-style-type: none"> Significant impact on Green Belt purposes. No evidence of landowner intention to develop. Limited access to local facilities. Air quality issues. Loss of protected open space which contributes to the character of the Southacre Conservation Area. Loss of Grade 2 Agricultural Land.
Assessments of Rejected Green Belt Sites for Broad Location 4: Land West of Hauxton Road, Trumpington					
SC68: Land west of	27.56 ha	Residential with associated open	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Limited access to local facilities and poor

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Hauxton Road, Trumpington		space		water flood risk but capable of mitigation.	<ul style="list-style-type: none"> transport accessibility. Air quality and noise issues due to close proximity to the M11.
CC914b: Land west of Hauxton Road, Trumpington	4.65 ha	Residential and a new community stadium	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Limited access to local facilities and poor transport accessibility. Air quality and noise issues due to close proximity to the M11.
CC914a: Land west of Hauxton Road, Trumpington	4.65 ha	Residential	Zone 1	The sites lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Limited access to local facilities and poor transport accessibility. Air quality and noise issues due to close proximity to the M11.
SC69: Land west of Hauxton Road, Trumpington	27.56 ha	Residential and a new community stadium	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Limited access to local facilities and poor transport accessibility. Air quality and noise issues due to close proximity to the M11.
Assessments of Rejected Green Belt Sites for Broad Location 5: Land South of Addenbrooke's Road					
SC294 (a small part of site SC105): Land east of Hauxton Road	8.23 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Adverse impact on Green Belt purposes. Inadequate vehicular access. Limited access to local facilities and poor transport accessibility.
SC105 (see also CC878): Land to the south of Addenbrooke's	145 ha	Part of proposed urban extension with, Residential, employment, local centre,	Mostly Zone 1	A very small area in the southern part of the site adjacent to the River Cam is within flood zones 2, 3a and 3b. Site subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Significant impact on Green Belt purposes. Poor transport accessibility. Air quality and noise issues due to proximity to the M11.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Road		community facilities, outdoor leisure and recreation uses and public open space			
CC904: Land east of Hauxton Road	9.22 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> • Significant impact on Green Belt purposes. • Poor transport accessibility. • Air quality and noise issues due to proximity to the M11.
CC878: Land east of Hauxton Road	23 ha	Part of urban extension with, Residential, employment, local centre, community facilities, outdoor leisure and recreation uses and public open space	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> • Very significant impact on Green Belt purposes. • Poor transport accessibility. • Limited access to local facilities. • Air quality and noise issues due to proximity to the M11.
SC295: Land east of Hauxton Road	5.69 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> • Adverse impact on Green Belt purposes. • Limited access to local facilities. • Poor transport accessibility.
Assessments of Rejected Green Belt Sites for Broad Location 6: Land south of Addenbrooke's Road and south west of Babraham Road					
CC925: Land south of Addenbrooke's Road and	39.80 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. There are fairly significant surface water issues towards the north of the site. Careful mitigation required.	<ul style="list-style-type: none"> • Very significant impact on Green Belt purposes. • Limited access to local facilities. • Air quality issues. • Loss of Grade 2 agricultural land.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
south west of Babraham Road					
Assessments of Rejected Green Belt Sites for Broad Location 7: Land to the south of Cambridge Road, Fulbourn					
SC283: Land south of Cambridge Road, Fulbourn	6.62 ha	Part of much larger site for urban extension with residential, R&D employment, neighbourhood centre and public open space	Zone 1	The location lies entirely within Flood Zone 1. There are no surface water issues but development must be mindful of potential flow routes from adjacent high land to the south.	<ul style="list-style-type: none"> • Significant impact on Green Belt purposes. • Cycle access issues.
SC111: Land south of Cambridge Road, Fulbourn	24.75 ha	Part of much larger site for urban extension with residential, R&D employment, neighbourhood centre and public open space	Zone 1	The location lies entirely within Flood Zone 1. There is a small amount of surface water flooding in a band across the centre of the site following the line of a watercourse. Careful mitigation required.	<ul style="list-style-type: none"> • Very significant impact on Green Belt purposes. • Limited access to local facilities. • Cycle access issues. • Loss of Grade 2 agricultural land.
CC931: Fulbourn Road South 1	1.3 ha	Employment	Zone 1	The site lies entirely within Flood Zone 1. There are no surface water issues but development must be mindful of potential flow routes from adjacent high land.	<ul style="list-style-type: none"> • Adverse impact on Green Belt purposes. • Lack of cycle provision. • Site superceded by larger site CC933, which is being put forward for employment allocation.
CC911: Cambridge South East	116.55 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is significant in terms of surface water flooding as runoff	<ul style="list-style-type: none"> • Very significant impact on Green Belt purposes. • Large part of the site constrained by Cambridge Airport public safety zone.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
(land south of Fulbourn r/o Peterhouse Technology Park extending south and west of Beechwood on Worts Causeway, land west of Babraham Park and Ride)				contributes to surface water flooding of the existing built environment. Development could offer a solution and flood risk management benefit.	<ul style="list-style-type: none"> Limited access to local facilities. Significant air quality impact. Loss of protected open space. No access to high quality public transport and poor cycle access.
SC284: Land south of Wort's Causeway	16.63 ha	Residential (part of larger urban extension to the city)	Zone 1	The site lies entirely within Flood Zone 1. There is fairly significant surface water flooding towards Cherry Hinton Road. Careful mitigation required.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Limited access to local facilities. Impact on wildlife site, green infrastructure and biodiversity.
Assessments of Rejected Green Belt Sites for Broad Location 8: Land east of Gazelle Way					
SC296: Land east of Gazelle Way	21 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Adverse impact on Green Belt purposes. Limited access to local facilities. Very significant archaeological constraints.
Assessments for Rejected Green Belt Sites for Broad Location 9: Fen Ditton					
SC161: High Street, Fen Ditton	1.69 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant negative impact on Listed Buildings. Significant Conservation constraints.
SC160: Land at Fen Ditton (east of Fen	52.44 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant negative impact on Listed Buildings. Significant Conservation constraints.

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Ditton)				mitigation.	<ul style="list-style-type: none"> Limited access to local facilities.
SC159: Land at Fen Ditton (west of Ditton Lane)	17.19 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant negative impact on Listed Buildings. Significant Conservation constraints. Limited access to local facilities.
SC601: Land off High Ditch Road, Fen Ditton	0.32 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant Conservation constraints. Limited access to local facilities.
SC060: Land south of Shepherds Close, Fen Ditton	5.06 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant negative impact on Listed Buildings. Significant Conservation constraints. Limited access to local facilities.
SC036: Land east of Horningsea Road, Fen Ditton	5.36 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant Conservation constraints. Limited access to local facilities. Lack of access to high quality public transport.
SC254: Land between 12 and 28 Horningsea Road, Fen Ditton	0.52 ha	Residential	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to minor surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Very significant impact on Green Belt purposes. Significant negative impact on Listed Buildings. Significant Conservation constraints. Limited access to local facilities.
Assessments of Rejected Green Belt Sites for Broad Location 10: Land between Huntingdon Road and Histon Road					
SC298 (part): Land south of the A14 and west of	80 ha	Residential and commercial	Zone 1	The site lies entirely within Flood Zone 1. The site is subject to surface water flood risk but capable of mitigation.	<ul style="list-style-type: none"> Significant adverse impact on Green Belt purposes. Noise and air quality constraints due to

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of Sequential Test	Reasons for rejection
Cambridge Road					proximity to the A14.

Table 6: Site Assessments for residential mooring sites within Cambridge put forward for allocation

Residential Moorings within Cambridge					
Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
RM1 (Local Plan 2006 allocation 3.01)	RM1: Fen Road	0.98 ha	Residential moorings	Zone 1	The site lies within Flood Zone 1 and is adjacent to Flood Zone 3. There are minor to moderate amounts of surface water flooding towards the centre of the northern part of the site. Careful mitigation required. While the site is currently within Flood Zone 1, due to the nature of the proposed use, the site will effectively become Flood Zone 3. As the proposed development will be used for the mooring of boats, which are deemed to be 'water compatible' this is still deemed to be acceptable, bearing in mind the guidance contained in the National Planning Practice Guidance.

9.5 Flood Zone 1: The site in table 6 above falls entirely within flood zone 1 and can be allocated for residential moorings within Cambridge without the need to consider alternatives from a flood risk point of view.

Table 7: Site assessments for University site options within Cambridge put forward for allocation

University Site Options within Cambridge					
Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
U1 (Local Plan 2006 Allocation 7.10)	U1: Old Press/Mill Lane	2.00 ha	University related uses	Zone 1	The site lies within Flood Zone 1 and is adjacent to Flood Zone 3. There is a fairly significant amount of surface water flooding towards the centre of the site. Careful mitigation required.
U2 (Local Plan 2006 Allocation 7.08)	U2: New Museums Site, Downing Street	1.97 ha	University related uses	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues capable of mitigation.
Includes Part of SHLAA Site 876)	U3: Grange Farm off Wilberforce Road	1.22 ha	University related uses	Zone 1	The site lies mostly within Flood Zone 1 although the southern edge of the site is in Flood Zone 3. Fairly significant amount of surface water flooding towards the north and the southern edge of the site. Careful mitigation required.

9.6 Flood Zone 1: The sites in table 7 above fall entirely within flood zone 1 and can be allocated for primarily University related uses within Cambridge without the need for consider alternatives from a flood risk point of view.

Table 8: Site assessments for mixed use site options within Cambridge put forward for allocation

Mixed Use Site Options within Cambridge					
Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
M1 (Local Plan 2006 allocation 5.04)	M1: 379-381 Milton Road	2.43 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There is a fairly significant amount of surface water flooding towards the centre of the site. Careful mitigation required.
M2 (Includes SHLAA Site CC913)	M2: Clifton Road Area	9.43 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There is a minor to moderate amount of surface water flooding. Careful mitigation required.
M3 (Local Plan 2006 Protected Industrial Site)	M3: Michael Young Centre, Purbeck Road	1.3 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues capable of mitigation.
M5 (SHLAA Site CC872)	M5: 82-88 Hills Road and 57-63 Bateman Street	0.50 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There is a fairly significant amount of surface water flooding towards the centre of the site. Careful mitigation required.
R6 (SHLAA Site CC443)	R6: 636 – 656 Newmarket Road, Holy Cross Church Hall, East Barnwell Community Centre and Meadowlands,	1.01 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There are no surface water issues.

	Newmarket Road				
R21 (Local Plan 2006 allocation 7.12)	R21: 315 – 349 Mill Road and Brookfields	2.78 ha	Mixed use	Zone 1	The site lies within Flood Zone 1. Flood Zone 2 is adjacent to the northern site edge. There are minor surface water issues but capable of mitigation.
	M13: West Cambridge Site	66.90 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues that can be mitigated for with good design. This site already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate.
	M14: Station Road West	8.77 ha	Mixed use	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues that can be mitigated for with good design. This site already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate.
	M15: Cambridge Biomedical Campus including Addenbrooke's Hospital	68.21 ha	Mixed use including: Medical services and biomedical and biotechnology research and development	Zones 1 and 2	A large part of this site (57.93 ha) already has planning permission and as such will have been subject to site specific flood risk assessment including the sequential test where appropriate. For the remainder of the site (10.28 ha), this lies within Flood Zones 1 and 2. Any areas at risk of flooding can be accommodated into the layout of the development through the masterplanning process. There are minor surface water issues that can be mitigated for through good design.

- 9.7 Flood Zone 1: The majority of sites in Table 8 above fall entirely within flood zone 1 and can be allocated for primarily mixed use related uses within Cambridge without the need for consider alternatives from a flood risk point of view.
- 9.8 Flood Zone 2: One of the sites being carried forward from the existing Local Plan 2006, site M15 Cambridge Biomedical Campus, lies partly within Flood Zone 2. As such, it has been necessary to apply the Sequential Test. Given the uses proposed for the site, which fall within the 'more vulnerable' and 'less vulernable' categories set out in the National Planning Practice Guidance, it has not been necessary to apply the Exception Test. Other sites were considered for mixed use development, but have been rejected for the reasons detailed in Table 9 below. While none of these sites have been ruled out for flood risk reasons, the majority of the sites have either

already been developed or landowners have advised that the site is not available for development. As such they are considered unsuitable for allocation within the Cambridge Local Plan 2014.

9.9 A key consideration in the proposed continued allocation of site M15 is the national and international importance of the Biomedical Cluster that is emerging at the site, and the need for medical services and research and development uses to be in close proximity to Addenbrooke’s Hospital which forms part of the site. As such, this site is considered to pass the Sequential Test as:

- Following a thorough assessment of other sites, it has been shown that there are insufficient sites within Flood Zone 1 within close proximity to the existing Biomedical Cluster and facilities provided by Addenbrooke’s Hospital to provide for the uses proposed within site M15;
- Allocation of the site is important to the continued economic success of the Cambridge Biomedical Cluster, which has strong links with Addenbrooke’s Hospital;
- Both the Cambridge and Peterborough NHS Foundation Trust and the University of Cambridge, who are involved in the teaching aspect of the Hospital, supported the continued allocation of this site during consultation on the Proposed Submission Local Plan, allocation being seen as an important element in developing capital building projects for the Biomedical Campus and hospital site;
- The majority of the site was granted outline planning permission in 2006, which was accompanied by a site specific flood risk assessment. This demonstrated that the site would be safe for its lifetime, taking into account the vulnerability of its users, without increasing flood risk elsewhere and, where possible, reducing flood risk overall;
- Mitigation measures have and will continue to be put in place to reduce the risk of flooding to the development itself and areas downstream of the development from all forms of flooding. These measures include the implementation of sustainable drainage systems and the masterplanning of development away from areas of flood;
- In line with the National Planning Practice Guidance, medical services are classified as ‘more vulnerable’ and research and development is classified as ‘less vulnerable’ and as such can be considered appropriate in Flood Zone 2 subject to the implementation of appropriate mitigation measures.

Table 9: Site Assessments for Rejected Mixed Use Sites within Cambridge

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of the Sequential Test	Reasons for Rejection
R22 (Local Plan 2006 Allocation Site 5.13)	0.89	Mixed Use	Zone 1	Fairly significant amount of surface water flooding towards the centre of the site.	Half the site has been developed and the remainder of the site has an

Site Number	Site Area (ha)	Proposed Use	Flood Zone	Results of the Sequential Test	Reasons for Rejection
				Careful mitigation required which could impact on achievable site layout as greater level of green infrastructure required.	extant planning consent and is less than 0.5ha. As such it does not merit allocation.
R26 (SHLAA Site CC909) Shire Hall site, Old Police Station, Castle Mound and 42 Castle Street.	2.91	Mixed Use	Zone 1	Low risk of fluvial flooding	The landowner has advised that the site is not available for development.
M6 (Local Plan Allocation Site 7.01) New Street/Newmarket Road.	2.01	Mixed Use	Zone 1	The site lies entirely within Flood Zone 1. There are some surface water issues which are capable of mitigation through good design.	The site is mostly built out. The remainder of the site is too small to allocate.
M7 (Local Plan Allocation Site 6.01) Bradwell's Court.	0.36	Mixed Use	Zone 1	The site lies entirely within Flood Zone 1. There are some surface water issues which are capable of mitigation through good design.	This site has now been built out.
M8 (Local Plan 2006 Allocation Site 7.11) Brunswick Site.	1.57	Mixed Use	Zone 1	The site lies entirely within Flood Zone 1. There are some surface water issues which are capable of mitigation through good design.	This site is currently under construction for residential development.

Table 10: Site Assessments for employment site options within Cambridge put forward for allocation

Employment Site Options within Cambridge					
Site Number	Draft Plan Site Allocation Reference	Site area (ha)	Proposed Use	Flood Zone	Results of Sequential Test
E4 (Employment Land Review Site 126)	E4: Church End Industrial Estate, Rosemary Lane	5.77 ha	Employment uses	Zone 1	The site lies entirely within Flood Zone 1. There are minor surface water issues but capable of mitigation.
E5	E5: 1 and 7-11 Hills Road	1.4 ha	Employment uses	Zone 1	The site lies entirely within Flood Zone 1. There is a fairly significant amount of surface water flooding. Careful mitigation required.

9.10 Flood Zone 1: The sites in table 10 above fall entirely within Flood Zone 1 and can be allocated for primarily employment related uses within Cambridge without the need to consider alternatives from a flood risk point of view.

10 CONCLUSIONS

- 10.1 In accordance with national guidance, the Council has used the Sequential Test and, where necessary the Exception Test, to inform allocation of sites in the Cambridge Local Plan 2014: Proposed Submission. All of the sites proposed for allocation for employment development, University related development and residential moorings are within Flood Zone 1 and as such are in accordance with the Sequential Test.
- 10.2 Of the sites allocated for residential development, one of these sites (Clay Farm) does contain land that falls within Flood Zones 2 and 3, although the majority of the site lies within Flood Zone 1. As such it has been necessary to apply both the Sequential Test and the Exception Test.
- 10.3 The Clay Farm site was allocated for development as part of the Cambridge Local Plan 2006. It was one of a number of sites on the edge of Cambridge that were released from the Green Belt in order to meet the housing need identified in the 2006 Plan and to help redress the balance between homes and jobs. As the site has only been partially developed, it continues to play an important role in meeting the objectively assessed housing need set out in the Cambridge Local Plan 2014.
- 10.4 Outline planning permission was granted in 2010, and was accompanied by a Site Specific Flood Risk Assessment, as required by the Exception Test. As such the Clay Farm site is considered to pass both the Sequential Test and the Exception Test as:
- Following a thorough assessment of other sites for housing development, it has been shown that there are insufficient sites suitable for development that lie entirely within Flood Zone 1 to meet Cambridge's objectively assessed housing need of 14,000 homes by 2031;
 - The outline planning application was accompanied by a Site Specific Flood Risk Assessment, which demonstrated that the site would be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere and, where possible, reducing flood risk overall;
 - Land on the site within Flood Zone 3 has been developed for water compatible uses including amenity greenspace and balancing ponds;
 - Mitigation measures have been put in place to reduce the risk of flooding to the development itself and areas downstream of the development. These measures include the implementation of sustainable drainage systems and the raising of land within Flood Zone 2;
 - In line with the National Planning Practice Guidance, residential development, which is classified within the 'more vulnerable uses', can be considered appropriate in Flood Zone 2 subject to the implementation of mitigation measures.
- 10.5 Of the sites proposed for allocation for mixed-use development, six of these are located within Flood Zone 1, while one site, Site M15 the Cambridge Biomedical Campus including Addenbrooke's Hospital, is partly located within Flood Zone 2. As such it has been necessary to apply the Sequential Test. Given the uses proposed for the site, which fall into the 'more vulnerable' and 'less vulnerable' categories set out

in the National Planning Practice Guidance, it has not been necessary to apply the Exception Test. A key consideration in the proposed continued allocation of this site (it was originally allocated in the Cambridge Local Plan 2006), is the national and international importance of the Biomedical Cluster that is emerging at the site, and the need for medical services and research and development uses to be in close proximity to Addenbrooke's Hospital, which forms part of the site. As such, this site is considered to pass the Sequential Test as:

- Following a thorough assessment of other sites, it has been shown that there are insufficient sites within Flood Zone 1 within close proximity to the existing Biomedical Cluster and facilities provided by Addenbrooke's Hospital to provide for the uses proposed within Site M15;
- The continued allocation of the site is important to the continued economic success of the Cambridge Biomedical Cluster, which has strong links with Addenbrooke's Hospital;
- The majority of the site (57.93 ha out of 68.21 ha) was granted outline planning consent in 2006, which was accompanied by a Site Specific Flood Risk Assessment. This demonstrated that the site would be safe for its lifetime, taking into account the vulnerability of its users, without increasing flood risk elsewhere and, where possible, reducing flood risk overall;
- Mitigation measures have and will continue to be put in place to reduce the risk of flooding to the development itself and areas downstream of the development. These measures include the implementation of sustainable drainage systems and the masterplanning of development away from areas of flood risk;
- In line with the National Planning Practice Guidance, medical services are classified as 'more vulnerable' and research and development is classified as 'less vulnerable' and as such can be considered appropriate in Flood Zone 2 subject to the implementation of appropriate mitigation measures.

10.2 In light of the above, the Council considers that the proposed allocations provide the most appropriate way of utilising land in accordance with the identified flood risk status. In developing this Sequential Test Report, the Council has sought advice from the Environment Agency, who have supported the approach being taken.