CC021

Chelmsford Local Plan

Updated Sequential and Exception Tests

16a East Chelmsford Garden Community (Hammonds Farm) &
16b Land adjacent to A12 Junction 18 Employment Area

May 2026

Introduction

The purpose of this report is to update the Sequential and Exception Tests for allocated Strategic Growth Site 16a – East Chelmsford Garden Community (Hammonds Farm) and Strategic Growth Site 16b - Land adjacent to A12 Junction 18 Employment Area. These have been reassessed in response to representations made to the Pre-Submission (Regulation 19) Local Plan.

Assessment of flood risk for the Local Plan

The Local Plan includes a number of related evidence base documents which should be read in conjunction with this report, this includes:

- CC001: Level 1 Strategic Flood Risk Assessment (SFRA), February 2024
- CC010 Chelmsford Level 2 Strategic Flood Risk Assessment (SFRA) May 2024 (Updated October 2025)

These documents can be found on the Local Plan website via the Evidence Base tab at www.chelmsford.gov.uk/lp-review.

Outcomes

The tables below set out the sequential and exception test outcomes for Strategic Growth Sites 16a and 16b. The information within the tables has been informed by the site information provided within the respective Site Summary Tables for these two Strategic Growth Sites available at CC010 Chelmsford Level 2 Strategic Flood Risk Assessment (SFRA) May 2024, see also direct links to the specific site summary tables:

SGS16a – East Chelmsford Garden Community (Hammonds Farm).pdf
SGS16b – Land adjacent to A12 junction 18 Employment Area.pdf

Abbreviations

AEP Annual Exceedance Probability

Site Name:	**East Chelmsford Garden Community (Hammonds Farm)**
Local Plan Reference:	**Strategic Growth Site 16a**
Site Area: (Ha)	310.44 (excluding Country Park)
Proposed Allocation/Use:	Residential and Employment – Garden Community
Capacity:	Around 3,000 homes to 2041 (plus 1,500 homes post 2041)

Flood Zone:	1	2	3	
	91.4%	8.6%	7.2%	
Flood Risk Vulnerability:	Residential - More Vulnerable Schools – More Vulnerable Employment, community uses, commercial, shops – Less Vulnerable Open space – Water Compatible			
Sources of Flood Risk:				
Surface Water Flooding	3.3% AEP – 0.1% 1% AEP – 0.5% 0.1% AEP – 4.1% In all events surface water risk is limited, with flows channelled by the lower topography of the watercourses. Sandon Brook flows along the eastern border of the site and is a carrier for most of the surface water. At the 0.1% AEP, shows some additional surface water flow paths and ponding across the site. These are often located where there are existing drainage features or spots of low topography. Risk away from these areas remains low.			
Critical Drainage Area	The site is not in Critical Drainage Area.			
Reservoir Flooding	Risk of flooding due to reservoirs dataset. In the Wet Day scenario there is a risk of flooding from the Great Sir Hughes (GSH Farming Ltd) and Handley Burns Farm (Private Individual) which follows the upper eastern boundary, and the Hanningfield Raw Water (Northumbrian Water Limited) extents cover the majority of the site with the exception of an area of high ground in the southwestern area of the site, and areas east of Sandon Brook. In the Dry Day scenario, Great Sir Hughes and Hanningfield Raw Water and Hanningfield Treated water have extents that follow the eastern boundary where extents are out of bank. The risk designation of Chignal Reservoir has not yet been determined while the others have been determined to be high risk, therefore, in the very unlikely event that the reservoirs fail, there may be a risk to life. Consultation with the reservoir owners and the Environment Agency should be sought at an early stage to ensure that residents of the site can be kept safe in the unlikely event of a reservoir breach, which is likely to require suitable arrangements for warning and evacuation.			
Fluvial and Tidal flooding	Flood risk associated with Sandon Brook impacts the length of the eastern border of the site. Flood Zones 2 and 3 encroach a maximum of 206m and 172m respectively into the site in the southeastern corner. To the northeast of the site, Flood Zones 2 and 3 only encroach by 17m and 6m respectively. Fluvial modelling matches the flood zones, with the greatest depths present in the immediate vicinity of the channel. Maximum depths outside the main channel reach up to 0.5m in 3.3% AEP, up to 0.7m in the 1% AEP and 0.9m in 0.1% AEP. The remainder of the site remains at low risk and fluvial risk is unlikely to pose a barrier to development provided development is located away from the area within the flood zones.			

	Flood Zones and fluvial modelling extents are not available for Blakes Stream to the east of the site, however surface water mapping suggests that flood extents from this watercourse are limited. The proposed bridge and access road through the proposed country park lies within Flood Zone 3, and is classified as Essential Infrastructure. The site is not at risk from tidal flooding.
Groundwater	The east of the site is at negligible risk of groundwater flooding emerging in this area. At the southwest of the site, groundwater levels are between 0.5m and 5m below the surface and as such there is risk to subsurface assets. The northwest of the site has groundwater levels at or very near the surface. Within this zone there is a risk of groundwater flooding to both surface and subsurface assets. To the east of Sandon Brook, groundwater levels are between 0.5m and 5m below the surface. As such, there is a risk of flooding to subsurface assets, but surface manifestation of groundwater is unlikely. As this area is proposed for open space/recreation uses this is unlikely to cause a barrier to development. The risk from groundwater should be confirmed and quantified as part of the site-specific flood risk assessment. Development should be steered away from those areas identified as being at risk from groundwater flooding or overland flows.
Sequential Test	
Are there reasonable alternative locations within the site boundary available in same or lower flood zone?	Yes. Over 90% of the site is in Flood Zone 1; even at the highest risk return period of 0.1% AEP; 4.1% is affected by surface water; a reservoir breach is highly unlikely; there is no Critical Drainage Area; and, ground water emergence is limited. With robust masterplanning and a site-specific flood risk assessment, it is feasible to follow a sequential approach to development. This will enable all development to be located in areas of risk appropriate to the land use, and place the most vulnerable land uses in areas of lowest flood risk.
Are there reasonable alternative site allocation(s) available in same or lower flood zone?	No. This is a key strategic scale allocation that is well connected and in a sustainable location in accordance with the Council's spatial strategy. It will continue the renewal and enhance the vitality of the city centre and urban area of Chelmsford. It will strengthen sustainable transport connectivity including to Beaulieu Railway Station to the north. Consideration has been taken of alternative sites as part of the Pre-Submission Integrated Impact Assessment. There are no reasonable alternatives which can meet the spatial strategy and provide development of this scale, located in close proximity to the city centre, are as well connected, avoid and manage flood risk, are deliverable and provide the wider benefits beyond those proposed for allocation in the Local Plan.
Conclusion - Will the proposed development type be acceptable in this flood zone?	Yes. There are no reasonably available sites at lower flood risk that can deliver sustainable development and meet the spatial strategy. All sources of flood risk have been considered, both now and into the future. It is entirely feasible that with appropriate masterplanning and site planning, development can meet the sequential approach with land uses placed in those areas of lowest risk or least risk pertinent to their flood risk.

Sequential Test passed?	Yes.
Exception Test required?	Yes. It will be necessary to apply the Exception Test, given part of the site includes Flood Zone 3, and that the proposed allocation includes residential and schools, both classified as More Vulnerable uses.
Exceptions Test	
Sustainability	This allocation is a key strategic site offering new homes at scale and with a range of supporting uses. It will not only create its own highly sustainable garden community, but will be well positioned to benefit and support the city centre of Chelmsford and its urban area, a key consideration with the spatial strategy. Wider sustainability benefits would include: • Low carbon transport corridor • Net zero carbon community • Country park for the city • Flood risk improvements to the wider catchment • Restoration of the riverside landscape.
Safety	The site is classified as More Vulnerable and is partly within Flood Zones 2 and 3. Areas are also at risk from surface water flooding, a reservoir breach and ground water. The Level 2 Assessment is clear that these risks can be avoided or managed, and that flood risk will not be worsened elsewhere. Developers will need to demonstrate through a site-specific flood risk assessment that all sources of flood risk have been considered and that the users of the allocation will be safe throughout its lifetime. The site-specific flood risk assessment should consider the following issues: • All sources of flood risk, including residual risk from a failure or overtopping of defences • Ground investigations will be needed to assess risk posed by ground water • Consultation with Chelmsford City Council, Essex County Council, Anglian Water, and the Environment Agency should be undertaken at an early stage • Climate change outputs for the 0.1% AEP were not available for the Chelmer 2010 model. The Environment Agency is currently updating the modelling. If climate change scenarios for the latest allowances are not available, developers will need to conduct their own site-specific flood risk assessments to determine risk for this scenario • Post development site layout, including drainage features, should account for surface water risk • Development should be designed with mitigation measures in place where required • Developers will need to demonstrate that the bridge and access road will not increase flood risk elsewhere, including consideration of potential blockage of the bridge, or impedance of floodplain flows.
Exception Test passed?	Yes. By balancing the benefits of the development against the flood risks, the proposal has demonstrated that it will provide positive outcomes for the community that outweigh those risks.
Recommendation	**Allocate the site**

Site Name:	**Land adjacent to A12 Junction 18 Employment Area**			
Local Plan Reference:	**Strategic Growth Site 16b**			
Site Area: (Ha)	22.1ha			
Proposed Allocation/Use:	Employment			
Capacity:	Around 43,000 sqm			
Flood Zone:	1	2	3	
	82.7%	17.3%	13.6%	
Flood Risk Vulnerability:	Employment – Less Vulnerable			
Sources of Flood Risk:				
Surface Water Flooding	3.3% AEP - 4.7% 1% AEP - 12.9% 0.1% AEP - 19.4% There is significant risk of surface water flooding both now and in the future. This is however confined to the eastern boundary of the site, Sandon Brook and lower lying areas. In all events, surface water is channelled by the lower typography of the fluvial watercourse. Sandon Brook flows along the eastern border of the site and is a carrier for most of the surface water. The maximum depth in each event is 1.2m. There is isolated ponding resulting from variations in the site topography. In the 1% AEP plus climate change event, ponding extends by an additional 98m and depth, hazard and velocity all increase. Development proposals must address potential changes associated with climate change and be designed to be safe for the lifetime of the development. Provisions for safe access and egress must address the potential increase in severity and frequency of flooding.			
Critical Drainage Area	The site is not in a Critical Drainage Area.			
Reservoir Flooding	The entirety of the site is impacted by the Dry Day and Wet Day scenarios. Hanningfield Reservoir would inundate this site. The risk designation of Hanningfield Reservoir has not been determined, but in the very unlikely event that the reservoir fails, there may be a risk to life.			
Fluvial and Tidal flooding	Flood risk from Sandon Brook impacts the length of the eastern border of the site. Flood Zone 2 and Flood Zone 3 encroach a maximum of 174m and 126m respectively in the northeastern corner of the site. To the northeast of the site Flood Zone 2 and Flood Zone 3 encroach 41m and 9m respectively. In all modelled scenarios flooding is limited to the area within flood zones. Flood depths are 0.1m in the 3.33% AEP, 0.4m in 1% AEP and 0.7m in 0.1% AEP. All other areas are unaffected. The site is not at risk from tidal flooding.			
Groundwater	The majority of the site is shown to have negligible risk of groundwater emerging in this area and any groundwater emergence has less than 1% probability of occurrence. There will be a remote possibility that groundwater flooding could lead to damage to property or harm to other sensitive receptors at or near this location. The northwest part of the site is shown to have groundwater levels between 0.5m			

	and 5.0m below the surface and there is a risk of flooding to subsurface assets. This will need to be assessed as part of a site-specific flood risk assessment.
Sequential Test	
Are there reasonable alternative locations within the site boundary available in same or lower flood zone?	Yes. At over 22ha there is scope within the site to accommodate the proposed development, including access and egress onto the A414, within the lowest areas of flood risk from all sources. Robust site planning should ensure development is designed and delivered in a sustainable and safe manner consistent with sound sequential approach principles.
Are there reasonably available alternative site allocation(s) available in same or lower flood zone?	No. This an employment development of strategic scale required to be in proximity to the city centre and urban area of Chelmsford. Its location adjacent to, and accessibility from, the A12 and the national trunk road network is a determining factor consistent with the Council's spatial strategy.
Conclusion - Will the proposed development type be acceptable in this flood zone?	Yes. There are no reasonably available sites at lower flood risk that can deliver sustainable development and meet the spatial strategy. All sources of flood risk have been considered, both now and into the future. It is entirely feasible that with appropriate masterplanning and site planning, this employment development can meet the sequential approach with development placed in those areas of lowest risk.
Sequential Test passed?	Yes
Exception Test required?	Yes. It will be necessary to apply the Exception Test, given part of the site includes Flood Zone 2 and 3, is at significant risk of surface water flooding and increased risk due to climate change, and that the proposed allocation includes employment, which is classified as a Less Vulnerable use.
Exception Test	
Sustainability	This allocation is a key strategic site offering new employment at scale. Its position adjacent to the A12, its close proximity to Beaulieu Station and the Sandon Park & Ride, ensures a highly sustainable location well positioned to benefit and support the city centre of Chelmsford and its urban area, a key consideration with the spatial strategy. Wider sustainability benefits would include: • Active travel enhancements on A414 • Multi-user crossing infrastructure on A414 • Publicly accessible multi-functional green infrastructure and open space • Improvements to ecological habitat • Enhanced flood risk mitigation.
Safety	The site is classified as Less Vulnerable and is partly within Flood Zones 2 and 3. It is at risk from surface water flooding, particularly with the advent of climate change. The Level 2 Assessment is clear that these risks can be avoided or managed, and that flood risk should not be worsened elsewhere. The development will need to demonstrate that:

	• A site-specific flood risk assessment demonstrates that all sources of flood risk have been considered and site users will be safe throughout the lifetime of the development and that development of the site does not increase the risk of surface water flooding on the site and to neighbouring areas • Development is steered away from areas of fluvial and surface water flood risk, such as adjacent to Sandon Brook • A carefully considered and integrated and flood resilient and sustainable drainage design is put forward, with development steered away from areas identified to be at risk • Safe access and egress can be demonstrated with fluvial and surface water 1% AEP plus climate change events • If flood mitigation measures are implemented, they are tested to ensure water is not displaced elsewhere.
Exception Test passed?	Yes. By balancing the benefits of the development against the flood risks, notably surface water, the proposal has demonstrated that it will provide positive outcomes for the community that outweigh those risks.
Recommendation	**Allocate the site**

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