

**Huntingdon Street, St Neots**

<b>OSNGR:</b> 518562,260739	<b>Area:</b> 1.00ha		<b>Brownfield</b>	
<b>Flood Zone Coverage:</b>	<b>FZ3b</b> 0%	<b>FZ3a</b> 0%	<b>FZ2</b> 100%	<b>FZ1</b> 0%

**Sources of flood risk:**  
Flood risk is from the River Great Ouse. The whole of the site is located within Flood Zone 2. The site is also shown to be affected by small pockets of surface water flooding.

**Exception Test Required?**  
Yes, for Highly Vulnerable development located in FZ2.

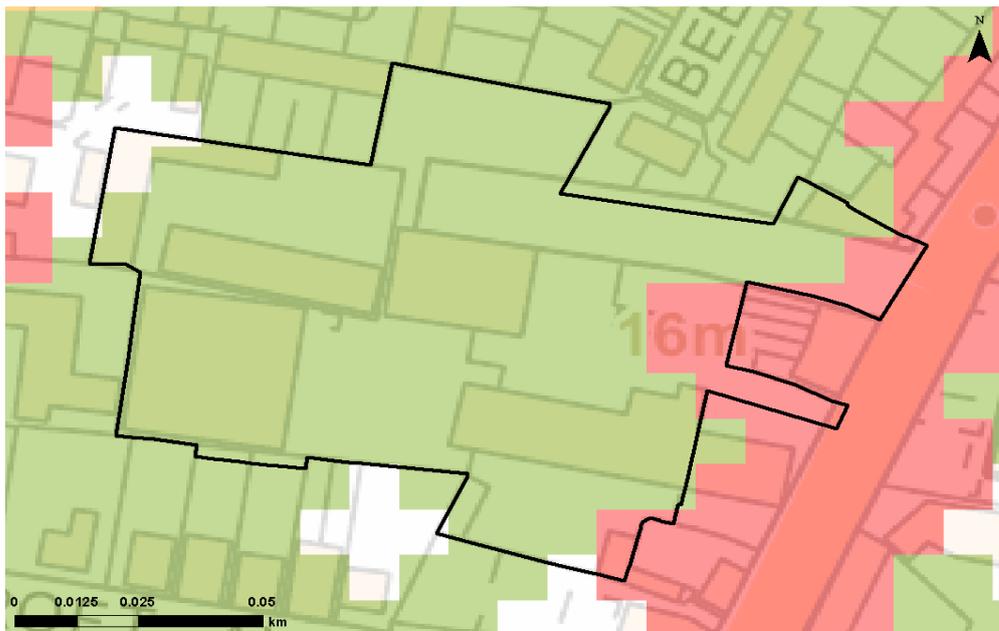
**Flood Zone Map**



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

**Climate Change Map**



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**Surface Water Map**



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



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Potential development location	<b>Depth (m)</b>	0.50 - 1.00	2.00 - 2.50	3.50 - 4.00
Council boundary	0 - 0.10	1.00 - 1.50	2.50 - 3.00	>4.00
	0.10 - 0.50	1.50 - 2.00	3.00 - 3.50	

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



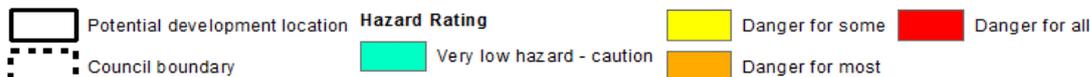
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Potential development location	<b>Velocity (m/s)</b>	0.2 - 0.5	1.0 - 2.0
Council boundary	0 - 0.2	0.5 - 1.0	> 2.0

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



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**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 possible risk from groundwater and that the site is classified as Brownfield.
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.
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).

**Flood Defences:**

There are no flood defences at this site.

**Emergency Planning:**

This site is covered by the River Great Ouse from Tempsford to Offord Flood Warning Area

**Access & Egress:**

All access and egress routes are affected by flooding in the 0.1% AEP event. Surface water flooding poses less risk to access and egress with just a couple of pockets of surface water risk on the routes.

**Climate Change:**

The site is already almost entirely within the Flood Zones. However, climate change modelling suggests that, in the future, what is currently Flood Zone 2 may become Flood Zone 3a. Flood depths may also increase in the site. Climate change may increase the extent of surface water flooding in the future.

**Implications for Development:**

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 during a flood. Climate change may also increase the extent of surface water flooding in the future and have the potential to affect routes.

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.

The site is not known to benefit from any flood defences. 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 Upstream Ouse 1D-2D model.](#)

At the planning application stage, a site-specific flood risk assessment will be required. Other sources of flooding should also be considered. 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 and fluvial flooding from a 0.1% AEP event.

New development must seek opportunities to reduce overall level of flood risk at the site, for example by:

- o Reducing volume and rate of runoff
- o Relocating development to zones with lower flood risk
- o Creating space for flooding.
- o 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.