

North of Clyde Farm, Godmanchester (HU36)

OSNGR: 524568,269435	Area: 2.15ha		Greenfield	
Flood Zone Coverage:	FZ3b 8%	FZ3a 2%	FZ2 4%	FZ1 86%

Sources of flood risk:
 The site is at risk of flooding from the Stoneyhill Brook which flows past the western boundary of the site. Surface water flooding follows a similar path.

Exception Test Required?
 Yes, if More Vulnerable and Essential Infrastructure development is located in FZ3a and for Highly Vulnerable development located in FZ2.
 Highly Vulnerable infrastructure should not be permitted within FZ3a and FZ3b.
 More Vulnerable and Less Vulnerable Infrastructure should not be permitted within FZ3b.
 Essential Infrastructure in Flood Zone 3b will require the Exception Test.

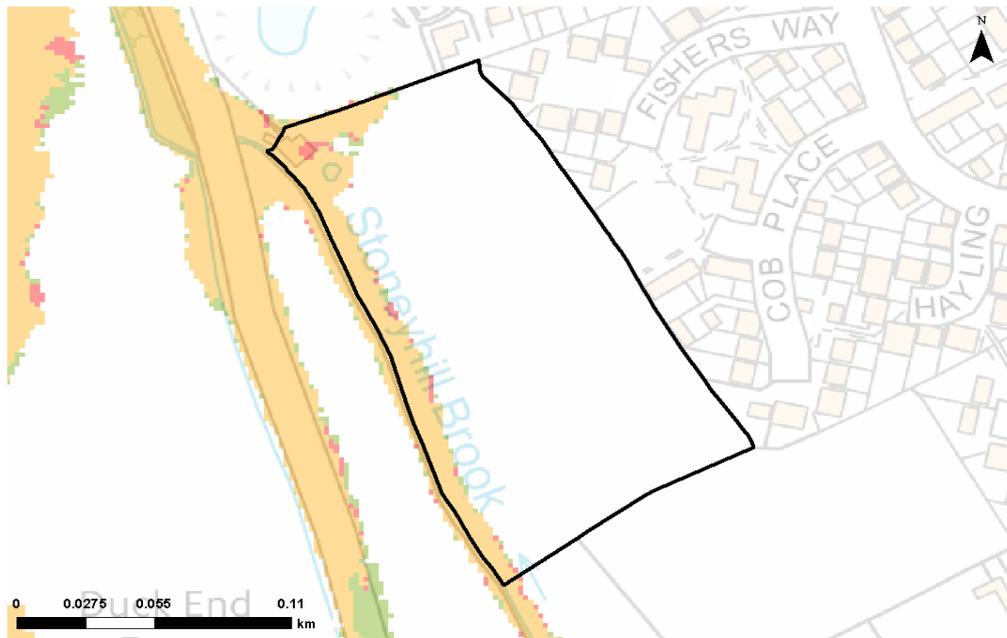
Flood Zone Map



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

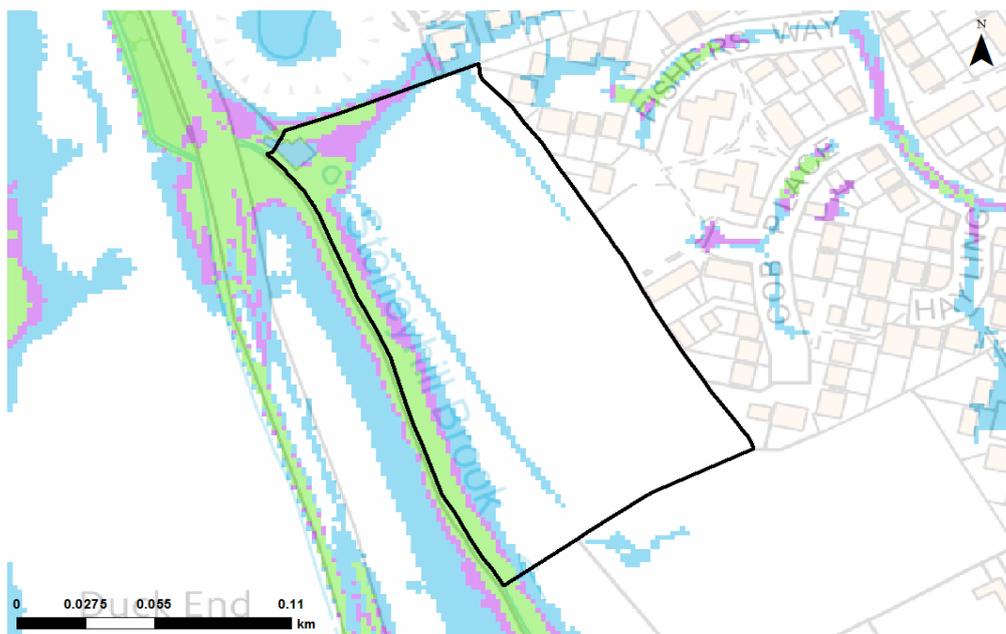
Climate Change Map



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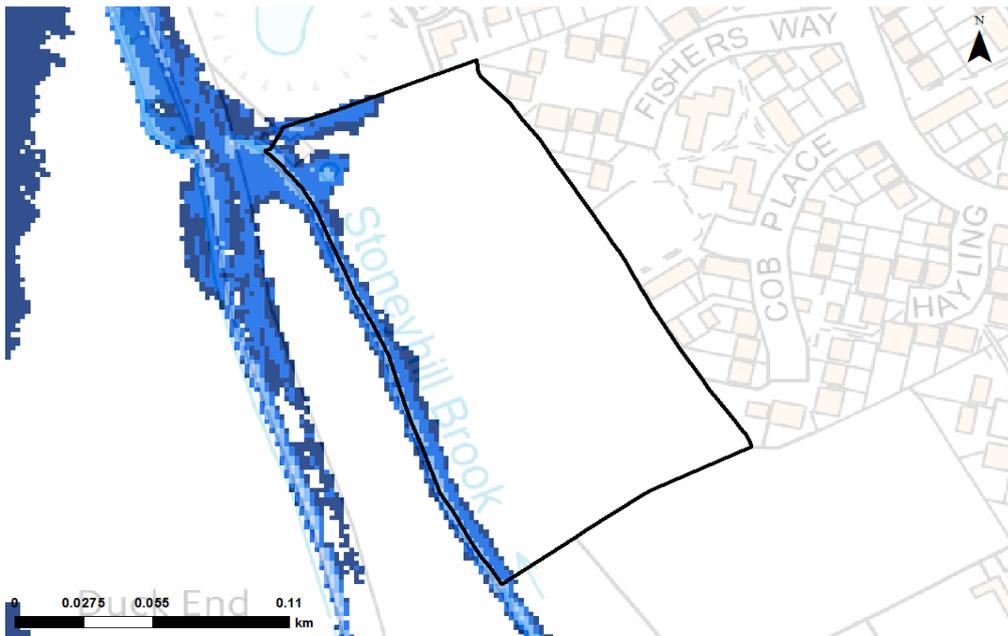
Surface Water Map



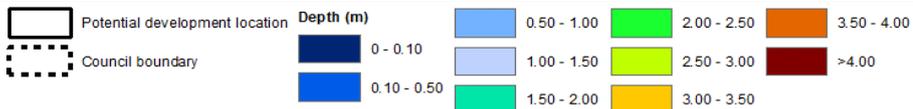
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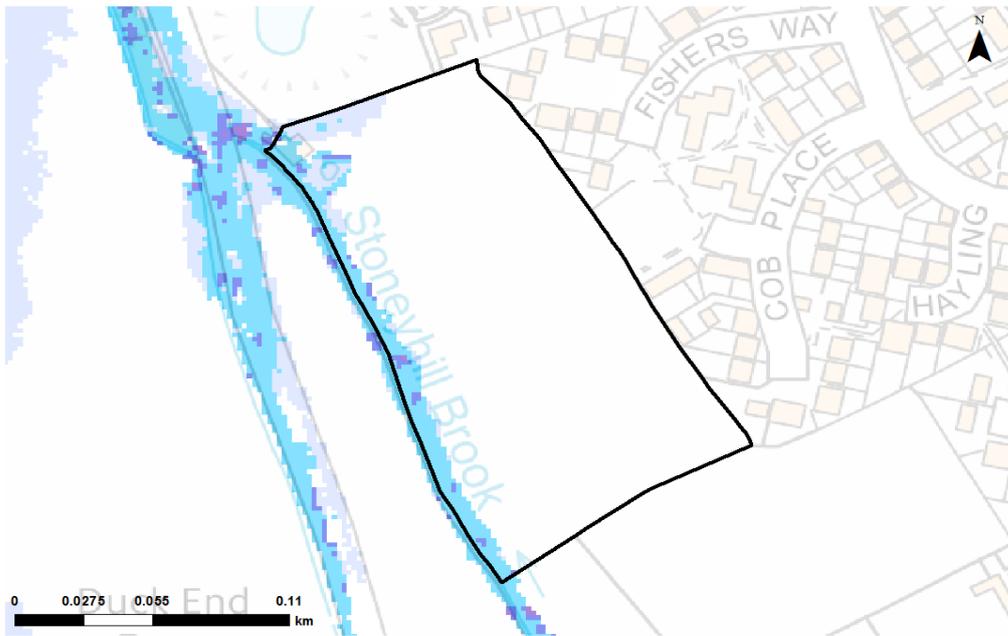
Depth Map - fluvial flooding (1% Annual exceedance probability)



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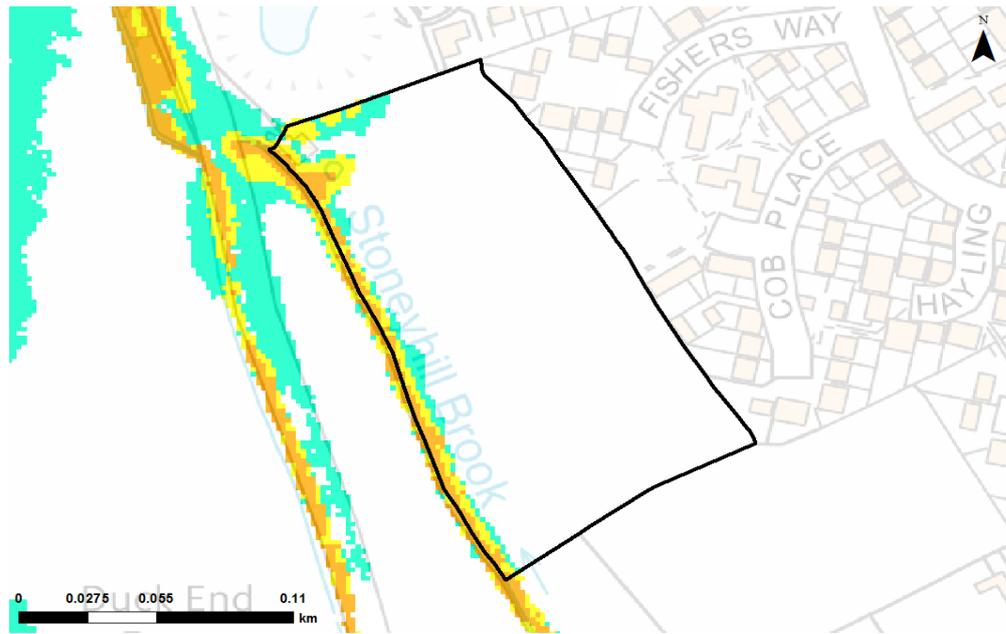
Velocity Map - fluvial flooding (1% Annual exceedance probability)



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



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	Potential development location	Hazard Rating		Danger for some		Danger for all
	Council boundary		Very low hazard - caution		Danger for most	

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.
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.
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.
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.

<p>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).</p>
<p>Flood Defences: There are no flood defences at this site.</p>
<p>Emergency Planning: There are currently no flood warning areas covering this site.</p>
<p>Access & Egress: There is currently no direct access route to the site.</p>
<p>Climate Change: Climate change modelling suggests there will be minimal increase in the extent of Flood Zone 3 in the future with all three 2080s climate change allowances providing similar outlines to the current 1% AEP event (Flood Zone 3). It may, however, increase the depth of flooding in the area affected. Climate change may also increase the extent, depth and frequency of surface water flooding in the future.</p>
<p>Implications for Development: Use of the Sequential Approach will be required to place vulnerable development outside of high risk areas. Approximately 1.8 hectares of the site is outside of Flood Zones 2 and 3. There is currently no direct access route to the site; developers should ensure any new route is placed outside of the Flood Zones. 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 not covered by the Environment Agency's Flood Warning Service. However, if development is placed outside of the Flood Zones, access to a flood warning would not be required. The site is not known to benefit from any flood defences. Given the size and location of the site, it is unlikely the site itself could be used to implement strategic solutions to alleviate flood risk elsewhere in the catchment.</p>
<p>Guidance for Developers: Mapping in this table is different to the Flood Map for Planning as it based on results from a 2D model developed for this SFRA. At the planning application stage, a site-specific flood risk assessment will be required to confirm Flood Zone extents. 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 Stoneyhill Brook 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 Stoneyhill Brook to ensure flows are not exacerbated downstream within the catchment. New development must seek opportunities to reduce overall level of flood risk at the site, for example by:</p> <ul style="list-style-type: none"> 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. <p>Consultation with the Local Authority and the Environment Agency should be undertaken at an early stage.</p>