

## Flood Risk Hydrology Statement Site IP034 Wherstead Road South

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The objection is that disallocating Site IP034 as unsuitable from Submission Policy SP2 is inconsistent with Policy SP2 evidence. SP2 is thus not “positively prepared” and ineffective.

**Document I34.101** AECOM IP034 assessment is inconsistent with the generic updated October 2020 AECOM SFRA **I34.1**, supporting all SP2 allocations in Flood Zones (FZ) 2 and 3. Evidentially, 25% of Site IP034 is in FZ 1.

WSP states that public domain EA fluvial flood maps show IP034 partially within FZ 3 (approximately 50% of the site), partially FZ 2 (approximately 25% of the site) and partially FZ 1 (25% of the site).

There is no evidence of flooding incidents on IP034; neither the 1953 tidal surge (maximum water level **MWL** 4.20m AOD), nor the 2013 tidal surge - MWL 3.50m AOD, nor any of the more minor tidal surges of 1976, 1978, 1983 or 2007, nor the fluvial events of 1939 or 1947.

The AECOM SFRA October 2020 reports 1 in 200 Year tidal flood level reached 4.12m AOD. 4.20 m AOD is the elevation separating FZ's 2 and 3, suggesting half the site is in Flood Zone 3. Inconsistent with this, the SFRA flood map shows only the eastern half of the site is within the 1 in 1000 Year fluvial flood zone. This equates to FZ 2. Thus, part of site IP034 is in FZ 1.

SFRA modelling for the 2118 1 in 200 Year coastal flood zone (i.e. with 100 years of climate change) is estimated at 5.27m AOD. IP034 is located riverside of the newly installed flood gate defences, but landside of a flood wall with a crest of 4.40m AOD.

Site ground elevations allow for safe refuge at the western end against extreme future flood events, including allowance for climate change. Appropriate design can prevent water ingress below an elevation of 5.70m AOD. All space and utilities above this elevation can be designed to assist managing extreme flood and fire risks. There is potential for extreme exceptional event safe egress northwards.

Egress by road would be limited temporarily only during an extreme flood/storm surge event. In combination impact of a flood and fire with need for urgent unplanned emergency access/evacuation is theoretically possible but statistically small. An evacuation plan can effectively mitigate this risk.

The site is suitable for approximately 75 flats with design capability both for safe “stay put” space, fire support systems and exceptional event safe egress. It is safe, pari passu safety suitability of all SP2 allocated sites Reallocation makes Policy SP2 consistent thus effective.