### Key Issues:
- A developed assessment of hydrological effects to ensure a sustainable approach to flood risk management was adopted as part of the scheme master planning.
- A previous EIA relating to the Site provided for an assessment of hydrological impacts based upon a 2012 Flood Risk Assessment (FRA). In preparing the revised scheme, a review was undertaken of the status and currency of the previous EIA baseline information and the extent to which this would need to be updated for the purposes of the present project.
- With respect to hydrological impacts, this included a 2017 site walk over survey and stakeholder consultation with the Environment Agency (EA) and the Lead Local Flood Authority (LLFA). Whilst the 2012 Flood Risk Assessment and previous EIA established an appropriate basis for development of the site, the EA’s flood map data is generally acknowledged to be relatively coarse and, in this instance, the mapping identified a relatively broad extent of defined floodplain.
- The applicant’s objective for the Hybrid Planning Application was to develop a masterplan for the first phase of development, secure approval for the initial infrastructure to serve the early housing parcels and to commence development in 2019.

### Purpose of the project:
- A mixed-use urban extension to St Neots, Cambridgeshire.
- Part of the larger St Neots Eastern Expansion which is established as a location for development as part of the adopted Development Plan.

### Description of the project:
- 163 hectares of principally agricultural land on the eastern edge of St Neots.
- A permanent expansion to the town including the introduction of 2,800 new homes, employment, district and local centres, primary schools, community uses, associated infrastructure and open space.
- Construction to be undertaken in phases in the period between 2018/2019 and 2030/2031.
- Followed refusal of an earlier outline planning application in April 2016 which was subject to appeal. That appeal was withdrawn in April 2017, following the sale of the site to the Wintringham Partnership.
- Key sensitive receptors included controlled waters and drainage systems. The site is traversed by two ‘main river’ watercourses (the Hen Brook and the Wintringham Brook) which flow north west to discharge to the River Great Ouse.
## EIA Learning Outcomes

### Lessons learnt:

- Site-scale hydraulic modelling analysis was undertaken to define the floodplain extents and categorise the site in accordance with the flood zones set out in the National Planning Policy Framework.
- An alternative approach was agreed with the EA and the LLFA whereby the defined flood zones could be modelled and remapped to reflect a refinement within the available data.
- The revised hydrological modelling was informed by the model developed as part of the EA's Lower Great Ouse Flood Risk Mapping Project (2015) which comprised a 1D-2D model developed using LiDAR data and calibrated against observed/recorded data for three flood events.

### Lessons learnt continued:

- The modelling demonstrated that the floodplain associated with the Wintringham Brook and its tributary is less marked and limited to relatively localised areas along the reach immediately upstream and around the confluence between the Brook and the tributary. The localised area of floodplain within the upper reach of the tributary is associated with existing agricultural crossings, which serve to impede flood flows during extreme flow conditions. Accordingly, the magnitude and spatial extent of the flood risk impacts to be assessed under EIA was reduced.
- This enabled the preparation of a revised FRA, a site-wide foul and surface water management strategy and a first phase water management strategy. These established positive design principles for the creation of surface water attenuation features and the extent of developable areas for the first phase of the development. In particular, new attenuation ponds could be located in closer proximity to the Wintringham Brook watercourse and retained outside of the functional floodplain.
- The developed assessment of hydrological effects therefore provided a positive outcome within the masterplanning of the scheme which informed the development parameters assessed under EIA such that the project will provide for a more sustainable approach to flood risk management. The additional layers of technical analysis provided for a fuller understanding of the hydrological function and characteristics of the Site and the main river water course. This ensured a more robust approach could be demonstrated under EIA. In terms of the wider benefits of the work, future development proposals relating to these watercourses can also be considered on an appropriate basis, having regard to the assessment outcomes.

### Contact details

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