

Environmental Effects

The Environmental Impact Assessment (EIA) is a process for identifying the environmental effects (positive and negative) of a proposed development before planning permission is granted. The aim of the EIA is to prevent, reduce or offset the significant adverse environmental effects of development proposals and enhance positive ones. The development at North West Cambridge has been subject to an EIA, which has identified and assessed the likely significant environmental effects of the Proposed Development. The following environmental issues associated with the Proposed Development are within the application.

Socio-economic effects

The Proposed Development will have a range of socio-economic effects, some temporary, some longer-term. Upon completion, the Proposed Development will make significant contributions to the local, regional and national economies through creation of approximately 5,875 permanent jobs, principally through the academic and commercial research floorspace. The social and community demands of the anticipated 8,590 person residential population will be met through a range of facilities, including a primary school, early years provision (in three locations), a community centre, primary care facility, police facility, and the full range of formal and informal recreation provision. Secondary school and library provision will be met off-site, and a contribution will be made to swimming pool provision.

Landscape and Visual Assessment

Consideration of the range of likely landscape and visual effects was taken into account throughout the design development of the Proposed Development. Likely significant effects of the Proposed Development on the surrounding landscape designations (Green Belt, Madingley Park, American Cemetery and Coton Countryside Reserve) are assessed as likely to be negligible both at 2014 and 2026. Overall the Proposed Development and its inherent Landscape Principles will enable the Proposed Development to be effectively integrated into the north western urban edge of Cambridge, with the wider landscape character and visual amenity remaining unaffected. The analysis indicates the likely significant effects from new lighting for the Proposed Development on the wildlife and habitat receptors. The overall effects from new lighting for the Proposed Development will satisfy technical and environmental good practice guidance.



Ecology and Nature Conservation

The Environmental Statement (ES) includes an assessment of the likely significant effects of the Proposed Development on ecology and nature conservation.

The creation of new habitats within the area of open land along the western edge of the Application Site will incorporate the Washpit Brook. In addition, the new balancing ponds and attenuation features will increase the wetland resource available to invertebrates, water voles and otters. Ponds supporting great crested newts and large populations of common toads will be protected, as will the terrestrial habitat used by these species. These areas of open land will deliver a number of ecological benefits.

The effects of the development on the Washpit Brook, Coton Nature Reserve and the Veteran Oak are deemed to be negligible.

Where the Proposed Development is likely to result in the loss of species, or assemblage of species, from the Application Site (as is the case for brown hares and farmland birds), off-site mitigation has been proposed.

Archaeology

An assessment has been undertaken to identify the effects of the Proposed Development on archaeological areas within the Application Site. Twelve distinct archaeological areas have been identified during the assessment, principally sites identified during the fieldwork programme. No statutory or locally designated (archaeological) heritage assets lie within the Application Site. The Proposed Development would not conflict with national or local policy regarding the safeguarding of heritage assets and none of the identified effects are of such significance that they should preclude the Proposed Development.

Cultural Heritage

The historic landscape and pattern of development in and around the Application Site have been considered and analysed in relation to its importance to the city of Cambridge. The effects of construction activity on listed buildings and their settings and on conservation areas and locally listed buildings will be indirect and temporary. A minor adverse effect on the wider historic landscape is identified, arising from the introduction of development on agricultural land and the creation of a new 'urban edge'. During the operational phases (at years 2014 and 2026) the effects are likely to range from negligible to minor/moderate adverse and influenced by mitigation incorporated within the design of the Proposed Development.

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Agricultural Circumstances

The ES includes an assessment of the effects of the Proposed Development on agricultural interests. A single agricultural business would be affected by the Proposed Development, the University of Cambridge Farm. The University of Cambridge Farm will, over the phased lifetime of the Proposed Development, lose the use of 125ha of agricultural land. This represents 12% of the total area farmed by the University and would normally be expected to have a marked effect on the profitability of a farm. In this instance the University has already purchased replacement land at Lolworth, and obtained replacement land near Madingley; investment in new farm buildings will be made shortly, and further investment is forecast. Taking this into account, the effect on the farming business is assessed as negligible by 2026.

Traffic and Transport

Traffic and Transport is addressed in the ES, but the details are covered separately in the Transport Strategy exhibition board.

Noise Environment

The ES includes an assessment of the likely significant noise and vibration effects associated with the construction, and subsequent operation, of the Proposed Development. It has been assessed that noise and vibration during all construction works can be effectively managed using precautions set out in the Construction Environment Management Plan. The effect of changes in road traffic noise levels resulting from the Proposed Development has been assessed as negligible. With respect to residential properties on Huntingdon Road, All Souls Lane and Conduit Head Road which back on to the Application Site, the vast majority of these will experience reductions in noise levels to their rear facades with the development in place. This is as a result of the shielding provided by the development buildings to noise from the M11 motorway.

Air Quality

An assessment has been undertaken in the ES of the likely significant effects on local air quality associated with the construction, and subsequent operation, of the Proposed Development. The overall conclusions of the assessment are that future year baseline air quality is very likely to improve relative to current baseline conditions and that the effect of the completed scheme on local air quality would be negligible.

Hydrology, Drainage and Flood Risk

The ES includes an assessment of the likely effects of the Proposed Development on flood risk and water resources. The Proposed Development is located within the headwaters of the Washpit Brook (a tributary of the Cottenham Lode / Beck Brook catchment). The Environment Agency's online flood maps indicate that the Application Site is located within Flood Zone 1 and therefore unlikely to be subject to flooding even once in a 1000 years. However, further hydraulic modelling has been undertaken on the Washpit Brook as part of the Site Specific Flood Risk Assessment has identified areas of the Site adjoining the watercourse that appear to be in Flood Zones 2 and 3. The geology underlying the site is variable. After allowing for the design features built into the Proposed Development and the construction methods under which it will be carried out, the likely significant effects of the Proposed Development in relation to hydrology, drainage and flood risk are considered generally to be negligible.

Utilities and Services

The ES includes an assessment of the likely significant effects on the existing utility infrastructure associated with the construction, and subsequent operation, of the Proposed Development. The assessment considers the effect of the Proposed Development on the following utility networks: Electricity, Gas, Telecommunications, Water Supply and Foul Water. Various measures that will be implemented as part of the Proposed Development mean that it has been assessed that these utility works can be undertaken with minor adverse or negligible effects.

Sustainability Considerations

The North West Cambridge Area Action Plan contains a range of policy drivers relating to sustainability. As a result of energy efficiency, the carbon reduction strategy predicts there to be a 29% reduction in heating fuel demand and a 12% reduction in electricity demand. The combination of these provides an 18% reduction in total CO₂ emissions. After the application of low and zero carbon energy technologies, the on-site reduction in CO₂ is predicted to be approximately 48% over the 13 year lifecycle of the development.

A number of measures are proposed which aim to reduce waste generation, and encourage recycling and re-use and where practicable, most BREEAM and Code for Sustainable Homes credits will be targeted.

