Northstowe
Phase 1 Planning Application

Environmental Statement
Technical Appendix A: Scoping

February 2012

18a

Northstowe

1 Introduction

1.1 This report summarises the results of the scoping consultation undertaken by Terence O'Rourke Ltd on the proposed Northstowe Phase 1 development. A scoping report was submitted to South Cambridgeshire District Council on 15 July 2011 and was forwarded by the council to a number of other organisations (table 1) on 22 July 2011.

1.2 This scoping consultation response document presents the key issues raised by the consultees and provides responses to each of the comments. Where applicable, cross references are made to where the issues have been addressed in the environmental statement. The scoping report is included in appendix 1 and copies of the consultees' responses are included in appendix 2.

Table 1: Organisations consulted as part of the scoping process

Organisation	Contact name	Position / department	Response received
South Cambridgeshire District Council	Jane Green	Head of New Communities	15.09.11
Cambridgeshire County Council	Joseph Whelan	Head of New Communities (summarising inputs from officers on highways, rights of way, minerals and waste, biodiversity, community, education and health, and water / flooding / drainage)	15.09.11
	Andy Thomas	Senior Archaeologist	24.08.11
Natural England	Ross Holdgate	Land Use Operations	25.08.11
Environment Agency	Tony Waddams	Planning Liaison Officer	22.08.11
Highways Agency	David Abbott	Asset Manager Area 8	14.09.11
English Heritage	--	--	--
National Planning Casework Unit	--	--	--
RSPB	Alex Cooper	Conservation Officer	24.08.11
Wildlife Trust	--	--	--
CPRE	--	--	--
National Farmers Union	--	--	--
Sport England	Philip Raiswell	Planning Manager	18.08.11
Buglife	--	--	--
British Horse Society	--	--	--
Ramblers Association	--	--	--
Arts Council East	--	--	--
Cambridgeshire Ecumenical Council of Churches	---	--	--
Cambridgeshire Horizons	--	--	--
Bedford Pilgrims Housing Association	--	--	--
NHS Cambridgeshire	Inger O'Meara	Health Improvement Specialist	25.08.11
Cambridge Primary Care Trust	--	--	--
East England Ambulance	--	--	--
Cambridgeshire Constabulary	--	--	--

Organisation	Contact name	Position / department	Response received
Cambridgeshire Fire and Rescue	--	--	--
Bar Hill Parish Council	--	--	--
Cottenham Parish Council	Julie Groves	Clerk	15.08.11
Dry Drayton Parish Council	--	--	--
Girton Parish Council	Brian Bromwich	--	03.08.11
Histon Parish Council	--	--	22.08.11
Lolworth Parish Council	--	--	--
Longstanton Parish Council	--	--	--
Oakington and Westwick Parish Council	--	--	--
Rampton Parish Council	--	--	--
Swavesey Parish Council	--	--	--
Willingham Parish Council	C. Jones	Chair Planning Committee	15.08.11
Rampton Drift Residents' Association	--	--	--
Longstanton and District Heritage Society	Hilary Stroude	Secretary	19.08.11
Cambridge Past, Present and Future	--	--	--
Network Rail	--	--	--
Sustrans	Rohan Wilson	Area Manager, Cambridgeshire	19.08.11
Stagecoach	Andy Campbell	--	25.07.11
Cambridge Cycling Campaign	--	--	--
Anglian Water	Denise Harding	Planning and Equivalence Team	11.08.11
Cambridge Water	--	--	--
Old Western Drainage Board	Andrew Newton	Engineer	12.08.11
Swavesey Internal Drainage Board	I. Smith	Clerk	01.08.11
EDF	--	--	--
BT	--	--	--
Councillor Burling	--	--	--
Councillor Bygott	--	--	--
Councillor Chatfield	--	--	--
Councillor Corney	--	--	--
Councillor de Lacey	--	--	--
Councillor Edwards	--	--	--
Councillor Ellington	--	--	--
Councillor Gymer	--	--	--
Councillor Hall	--	--	--
Councillor Harford	--	--	--
Councillor D. Jenkins	--	--	--
Councillor Johnstone	--	--	--
Councillor Manning	--	--	--
Councillor Mason	--	--	--
Councillor Read	--	--	--
Councillor J. Reynolds	--	--	--
Councillor K. Reynolds	--	--	--
Councillor Riley	--	--	--
Councillor H. Smith	--	--	--
Councillor M. Smith	--	--	--
Councillor Stonham	--	--	--

Organisation	Contact name	Position / department	Response received
Councillor Waters	--	--	--
Councillor Wotherspoon	--	--	--

2 Scoping consultation responses

South Cambridgeshire District Council

Comment	Response
The initial scoping report is considered to have identified most of the potential impacts of the proposed development.	Noted.
One problem that members of the public and officers had with the previous ES was the lack of cross-referencing and the duplication of information in other documents. It is requested that all documents submitted with the new application reference information contained in the ES where appropriate, to avoid unnecessary duplication in the supporting documents.	Noted. Efforts have been made to minimise duplication and ensure appropriate cross-referencing between documents.
Paragraph 6.6 of the scoping report acknowledges the energy strategy for the site has not yet been determined, so the potential for emissions of nitrogen dioxide and particulate matter from biomass boilers has been included in the scope of the EIA on a precautionary principle. The delivery of the material to run such facilities should be included as part of the assessment.	The energy strategy for the site does not include biomass boilers, so this topic has now been scoped out of the EIA.
Where possible, 2010 diffusion tube data or Bar Hill real time data, which can be supplied by the council, should be used for model validation and verification, although if a baseline scenario for 2007 is provided it would be accepted if it is accompanied by a 2010 / 2011 scenario and all necessary future scenarios.	The council's monitoring data have been used to inform the air quality baseline (ES chapter 8).
Data capture for real time Bar Hill nitrogen oxides was poor and it will not be possible to validate against this. These points will need to be discussed and agreed prior to work being carried out.	Validation data were agreed with SCDC and details of this are provided in chapter 8.
In addition to the EPUK *Development Control: Planning for Air Quality (2010 Update)*, the assessment should also have regard to the information and procedures set out in LAQM.TG(09).	The air quality assessment set out in chapter 8 and technical appendix E has regard to LAQM.TG(09).
Since the last scoping exercise in 2007, the council has adopted a District Design Guide SPD. Chapter 10 of the SPD sets out requirements for emissions and air quality assessments. A new requirement is for the production of a Low Emissions Strategy, which should	The Low Emissions Strategy for the proposed development has been submitted in support of the application.

Comment	Response
encompass the whole development. The strategy must consider and incorporate mitigation measures where possible and appropriate.	
Travel planning needs to be defined – will it encompass other modes of travel, such as walking, cycling etc.?	The travel plans in technical appendix D encompass a range of sustainable transport modes, including walking, cycling and public transport.
An evaluation of the impact of the development design, and use of green infrastructure, on health and wellbeing of future residents needs to be considered in the community, economic and social effects chapter. The chapter should also cover the potential impacts on existing rights of way and how any losses can be mitigated by facilities within the new development.	The effects of the development design on health and wellbeing, including the use of green infrastructure, are examined in the health impact assessment (HIA) submitted in support of the application. The effect on public rights of way, including the introduction of new rights of way, is examined in the community, social and economic and traffic and transport chapters (chapters 12 and 7).
Paragraph 3.1 of the scoping report includes proposals for a school. It would be helpful to include a clearer definition of what is being proposed, e.g. site and provision for a two form entry primary school.	Full details of the proposed school are provided in the proposals chapter of the ES (chapter 2).
The potential for new residents to feel excluded or not part of a community in the early days exists and should not be excluded from the assessment. Reference should be made to the *Joint Strategic Needs Assessment on New Communities*.	This issue has been addressed in the HIA submitted in support of the planning application.
A community centre with office space is expected to be provided for this first phase of development, which should form part of the likely mitigation measures. Likewise, it is expected that health provision be delivered locally and that services be planned for the first residents, which should be reflected in the temporal considerations of the EIA. A definition of local services would be helpful to set out what is being considered.	Full details of the proposed facilities, including the phasing of their provision, are set out in chapter 2 of the ES. Local services are examined in the community, social and economic chapter (chapter 12).
Would like to discuss further the effects on demand for local businesses and whether this could be 'clearly significant', rather than 'likely significant', given the amount of new	The potential for effects on local businesses is examined in chapter 12 of the ES.

Comment	Response
residents in this first phase of development.	
It is recommended that the HIA be integrated with the ES to provide a more holistic approach, rather than being submitted as a separate document. Special attention should be given to social infrastructure, and the importance of the social environment in contributing to good health needs to be highlighted. The scoping report should acknowledge that the ES and HIA are inextricably linked and the ES will assist with, and provide useful information for, any HIA that needs to be undertaken.	Given the scale, nature and scope of the HIA, it was considered appropriate to submit this as a separate supporting document, rather than as part of the ES. However, the HIA has been informed by the findings of the EIA and its findings are summarised in chapter 12 of the ES.
Lifestyle issues need to be included in the scoping study and clearly identified mitigation measures are needed if there is a gap between the completion of the first phase and the rest of Northstowe. Careful consideration of what baseline indicators are used is needed.	Lifestyle issues are examined in detail in the HIA.
The potential noise effects of the household recycling centre need to be assessed. Such centres have the potential to cause substantial noise impact to existing and proposed residential premises in terms of traffic movements, delivery and collections, impact noises, plant noise and overall hours of use.	The noise effects associated with the household recycling centre are assessed in chapter 9 of the ES.
The geographical range of cultural heritage impacts needs reconsideration as it appears to have been too narrowly drawn. Moreover, features such as Giant's Hill, Rampton scheduled monument, which is within 2 km of the site, have not been identified.	A 3 km study area has been used for the cultural heritage assessment (chapter 5 of the ES) and the potential for effects on the Giant's Hill scheduled monument is examined in this chapter.
There is no mention of which assets and effects have been considered before the likely significant environmental effects were defined and no identification of undesignated heritage assets, including those in the Historic Environment Record.	The cultural heritage assessment (ES chapter 5) and accompanying technical appendix B include a full identification of both designated and undesignated heritage assets in the vicinity of the site, and assesses potential effects on these assets.
It is suggested that an analysis of historic character and structures in the landscape be carried out and that a further justification of the rationale for the evaluation of effects be provided.	The cultural heritage assessment in chapter 5 of the ES includes consideration of the potential for effects on historic landscapes and structures.
There needs to be consideration of the importance of landscape features and their	The cultural heritage and landscape and visual

Comment	Response
relationship with cultural heritage, as well as the social impact of loss of rural environment and historic rights of way.	assessments in chapters 5 and 4 are cross-referenced. Social effects relating to effects on the public right of way network are examined in chapter 12 of the ES.
Given the importance of public art in helping to define new communities, it is suggested that public art be embedded in the rationale of the development from the onset. The use of public art as a form of mitigation should therefore be incorporated into the cultural heritage section.	The details of proposed public art are yet to be determined, so it is not possible to determine how this will relate to the site's heritage at this stage. Initial information on principles is provided in the Public Art Strategy, which forms part of the Design and Access Statement submitted in support of the application.
The site is located in a landscape of high archaeological potential and the impact of the development on the historic environment should be considered as part of the EIA. This assessment should include reference to relevant fieldwork undertaken to inform the previous Northstowe planning applications, and other fieldwork of relevance, such as the archaeological evaluation undertaken in advance of the construction of the golf course (Historic Environment Record Number ECB1089). Additional fieldwork may be appropriate where new areas of land take are proposed that were not included in the previous applications. This information should be used to inform appropriate mitigation, which may include excavation, recording and publication of results, or preservation in situ where this is merited by the significance of the archaeology or considered desirable in the context of the development.	The impact of the development on the historic environment is assessed in chapter 5 of the ES. This includes reference to past fieldwork, the reports of which have been submitted electronically as part of technical appendix B. Details of proposed mitigation are set out in the mitigation strategy included in technical appendix B, and summarised in chapter 5.
Should consider proposals for public presentation and engagement as part of the application, to ensure that the results of fieldwork are appropriately disseminated and to contribute to the character and distinctiveness of the emerging new community.	The potential for public engagement in relation to cultural heritage has been considered as part of the proposed mitigation in chapter 5.
Some trenching was undertaken on the golf course, which has been examined in conjunction with the results of previous programmes of work in this area and the results of the extensive geophysical survey.	The results of past surveys informed the cultural heritage assessment, and the reports are submitted electronically as part of technical

Comment	Response
	appendix B.
There are no records of an extant track on the eastern perimeter of the airfield.	Noted.
The cultural heritage assessment methodology proposed in the scoping report is supported.	Noted.
It is recommended that a historic environment management plan is produced to support the mitigation of the impact of this development. This would include details of sites / areas to be subject to excavation in advance of development (including infrastructure), details of measures to protect any areas identified for preservation in situ and measures to protect significant structures relating to the military use of the site. It would not be appropriate to propose archaeological watching briefs during construction as mitigation for this project.	A detailed mitigation strategy for the historic environment is included in technical appendix B.
More information on the scale of the earthworks and cut and fill activities and reprofiling is required to understand whether the excavated material is fit for purpose.	Details of the proposed earthworks and cut and fill are provided in chapter 2 of the ES.
Demonstrable consideration should be given to the geology of the potential excavation areas and whether digging of the areas would involve the removal of sand and gravel and potential pumping, which could have an impact on dewatering in the wider area.	The geology of the excavation area and the potential for effects on groundwater are examined in the geology, hydrogeology and contamination assessment (ES chapter 10).
All of the appropriate issues in relation to contaminated land appear to be covered.	Noted.
There are a few significant trees within the site that must be retained and their management considered. In addition to these, the benefits of incorporating character areas of trees into the built up areas, for example through green seams, needs to be considered. The retention of existing trees, and the planting of new trees, needs special consideration at the design stage of road infrastructure. The environmental benefits of incorporating trees within the street design, and the management of these trees, needs to be considered.	The loss and retention of trees is discussed in the landscape and visual assessment (ES chapter 4) and proposed planting is discussed in the proposals chapter (ES chapter 2).
The potential for land contaminated by any munitions needs to be considered in a Remediation Strategy and the Earthworks Strategy. The removal of ordnance, if present, has the potential to have a significant impact on the visual character of parts of the site for a number of years. The ES should consider how the impact of this process could best be mitigated.	The potential for contamination by unexploded ordnance is examined in chapter 10 of the ES.
Lighting impact can be wide and there can be significant adverse effects on ecology and	The potential for effects on residential amenity as

Comment	Response
possible statutory nuisance or detriment to the amenity of residential premises, both during the construction and operational phases. The effects / impacts of construction and operational artificial lighting on existing and proposed sensitive residential premises should be considered within the ES.	a result of increased lighting is examined in the community, social and economic assessment (ES chapter 12) and the lighting assessment in technical appendix J.
The 2007 ES had a separate chapter on lighting, which was robust and comprehensive with adequate mitigation measures. It is likely that this assessment in the main remains valid, subject to some validation of baseline lighting levels. It is recommended that the potential impact associated with any artificial lighting should be considered as a separate topic, or at the very least the ES should make it clear in the contents that artificial lighting impact has been assessed to include the impact on existing and proposed residential premises.	As the potential for effects from lighting relate to several topics, the effects are examined in the landscape and visual, natural heritage and community, social and economic assessments (ES chapters 4, 6 and 12). Technical appendix J provides details of baseline lighting levels and a lighting assessment.
The contents of the land use and agriculture section are considered acceptable.	Noted.
The 2 km boundary for assessing impacts on internationally or nationally designated sites is a matter that may require further discussion. Sufficient green space should be integrated into the development to minimise the impact on designated sites and local wildlife sites. In addition to this, the recreational impacts from the proposed development on designated sites and nature reserves should be assessed in the natural heritage chapter.	The natural heritage assessment considers the potential for indirect effects on internationally or nationally designated sites over a wider radius, including the potential for recreational effects.
The impact of increased surface water run-off and impacts on the quality of water resources should be assessed, particularly with regard to designated sites.	The potential for effects on designated sites as a result of changes to water quality and run-off is discussed in the natural heritage assessment (ES chapter 6).
An assessment of the impact on farmland birds should be made, with a possible mitigation measure of off site compensatory habitat being provided. The impacts on protected species should be assessed for both the construction and operational phases, with particular reference to the rare white spotted pinion moth, which is associated with elm trees and is known to be in Longstanton. An assessment of the impact upon the common toad and mitigation measures are also needed.	The potential for impacts on farmland birds and protected species is examined in chapter 6 of the ES and details of mitigation measures are provided.
Desk studies and field surveys of biodiversity information are needed for the site, using	A range of desk studies and field surveys have

Comment	Response
records from relevant local groups, as well as up to date botanical and terrestrial invertebrate surveys. A balance sheet approach to losses and gains of habitats should be adopted.	been undertaken, including an updated extended phase 1 habitat survey and surveys of butterflies and the white-spotted pinion moth, and the full survey results are included in technical appendix C. The scope of the updated surveys was agreed with the council's ecologist in May 2011.
Attention is drawn to the Green Infrastructure Strategy that has just been published, which designates Northstowe as a target area.	Noted. The Green Infrastructure Strategy was considered in the preparation of the master plan.
Noise from existing noise sources, such as the Cambridgeshire Guided Bus, on the proposed dwellings will require noise and vibration assessment and it would be sensible to include this under one chapter.	The effect of noise from existing sources on the proposed dwellings is examined in the noise assessment in chapter 9 of the ES and technical appendix F.
The same noise effects at both the construction and operational stages of the development, and affecting both existing and proposed noise sensitive development, particularly residential, as detailed in the scoping report for the 2007 ES remain applicable, as follows: • Impacts of construction noise and vibration (including traffic) during the site preparation and construction phase affecting existing and proposed noise-sensitive receptors • Impacts during the operational phase on both existing and proposed noise-sensitive receptors, including traffic noise and vibration, noise and vibration from existing employment and / or commercial development, noise and vibration from proposed employment, commercial and mixed use development on site, noise and vibration from the proposed household waste recycling facility and sewage pumping station • Impacts associated with the specific road improvement works during construction and operation The final remit should be agreed with the council.	The requested noise effects are examined in chapter 9 of the ES and technical appendix F. The final remit of the study was agreed with SCDC.
It is agreed that it is not necessary to assess the potential impact of all industrial and / or commercial activities (i.e. noise and vibration from the proposed employment areas) and any recreational uses / open spaces on proposed sensitive premises, and in particular any outdoor	Noted. The noise assessment in ES chapter 9 and technical appendix F includes noise design criteria, emissions limits, vibration standards and

Comment	Response
multi-use games areas with perimeter fencing or skateboard facilities, as the precise details that are needed for such detailed assessments (i.e. the nature of the activities and the detailed plot layout and position of buildings) are not known at this early stage. However, the ES should specify noise design criteria, emission limits and vibration standards that must be achieved to minimise any potential impact from industrial / commercial activities, including mitigation measures.	a range of appropriate mitigation measures.
An updated validation of the 2003 baseline noise measurements is acceptable, providing the remit is agreed with SCDC's health and environmental services. Particular regard should be given to the B1050 Longstanton western bypass, which was completed in 2008.	Noted. The scope of the validation study was agreed with SCDC and the results are reported in chapter 9 and technical appendix F.
The assessment of construction noise and vibration in accordance with the methodology in BS5228 is acceptable.	Noted.
The post-construction impact assessment methodology and significance criteria to quantify effects in accordance with relevant guidance / standards require agreement. A list of relevant guidance and policy was provided.	The assessment methodology was agreed with SCDC and the assessment in chapter 9 and technical appendix F refers to the relevant guidance and policy.
The proposed construction environmental management plan is welcomed, but the overall mitigation measures proposed are very limited. A list of possible additional measures was provided.	This was a preliminary identification of potentially appropriate mitigation measures to inform the scoping process. Full details of the proposed noise and vibration mitigation measures are provided in chapter 9 of the ES.
The scoping report identifies that a transport assessment (TA) will be undertaken and a separate TA scoping report will be agreed with the county council. The ES will summarise the key findings of the TA, focusing on the environmental issues and taking account of PPG13 and IEMA guidelines. It should also take into account the county council's informal guidance on TAs.	The traffic and transport assessment in chapter 7 of the ES and technical appendix D takes account of PPG13 and relevant guidance, including that provided by IEMA and the county council.
A clear indication of the scale of construction aggregates need is required, as is an understanding of the amount of lorries coming into and out of the site on a daily basis, access points, routes to the primary road network and period of time, including if certain time	Details of the construction phase, including those requested here, are set out in chapter 2 of the ES.

Comment	Response
restrictions are being assumed and temporary holding areas being considered during the construction phase.	
There is significant concern amongst the surrounding communities about the impact of traffic. The comments of the parish councils should be taken into consideration when considering means of mitigation. The traffic and transport effects will need to be informed by the associated transport assessment work and A14 transport work, which may affect their significance from that stated in the scoping report.	The traffic and transport assessment reported in chapter 7 of the ES and technical appendix D took account of the A14 work and the comments of the parish councils.
Mitigation measures will need further consideration and discussion. The scoping report does not mention bus revenue support for new (or extended) bus services, for example.	This was a preliminary identification of potentially appropriate mitigation measures to inform the scoping process. Full details of the proposed transport mitigation measures are provided in chapter 7 of the ES and technical appendix D.
The inclusion of public rights of way in the transport section, both in terms of effect on the existing network and the need for enhancement to reflect increased population, is welcomed.	Noted.
Public rights of way do not always appear in the right places in the scoping report. They need to be considered as receptors for noise, air quality etc., remembering the build phase as well as final design. The assessment will also need to consider where public rights of way are adjacent to land, e.g. Wilsons Road bridleway by the southern excavation area. A concern will be how any new access roads will affect the public right of way network.	The potential for effects on public rights of way is considered in the traffic, air quality and noise assessments (chapters 7, 8 and 9) as appropriate.
There are concerns that the alternative master plan layouts may impact on previous commitments to a perimeter bridleway and the retention of the Longstanton-to-Rampton byway (and other public right of way landscape features). Further comments will be provided once officers have had the opportunity to assess the proposed changes to the master plan.	Noted.
The inclusion of a household recycling centre, and acknowledgement that the RECAP toolkit will be completed to examine the post-construction waste streams, are both welcomed. More information on the construction and demolition waste streams is essential at this early stage,	Details of construction and demolition waste are provided in the Construction Management Strategy and Waste Management Strategy

Comment	Response
particularly to inform the ES assessment as part of the construction phases.	submitted in support of the application.
Further information on the anticipated fill for the excavations will be required. If waste is likely to be placed into the holes, the landform and after use should be considered as part of this assessment, and more information on how they will be backfilled, stabilised and restored, all needs to be clarified and taken into account. There is the potential for significant effects and potential contamination of any major aquifers located within the vicinity of the proposed excavations, and containment engineering may be necessary to enable waste disposal.	The excavations will become balancing ponds as part of the proposed drainage strategy. No excavations will be filled with waste, so there is no potential for contamination. Details of the excavations and proposed drainage strategy are provided in chapter 2 of the ES.
Paragraph 15.2 needs to be updated to state the mechanical biological treatment plant at Waterbeach is now operational and is no longer "currently under development". In addition, it would be useful to make it clear it is South Cambridgeshire's municipal waste that is largely managed at the Waterbeach Waste Management Park. As an aside, planning permission for a materials recovery facility has been granted for the Waterbeach site, so once this is built the recyclables currently being sent to other facilities are likely to be dealt with at Waterbeach.	Noted. The management of post-construction waste arising from the proposed development is discussed in the Waste Management Strategy submitted in support of the application.
It appears that the recycling of former airfield runways / hardstanding and the idea of a temporary inert waste processing facility during the construction phase have not been identified. In addition, the limited information on cut and fill aspirations makes it difficult to tell if any waste will need to be moved off site. Such omissions could lead to implications in relation to the waste section of the EIA and also to noise / vibration, air quality and landscape implications that need to be considered. The relevant sections should take account of these additional uses, which could change the outcome of the associated tables. It should also be noted that the re-use of aggregates would significantly reduce the project's traffic impacts, particularly at the early stages of development, where lorry movements associated with concrete / aggregate for road construction could be reduced. Such recycling activities and storage would be best placed as far from residents as possible. It should be clear what assumptions have been made and what impacts will be assessed in these cases.	The finalised application boundary excludes the northern potential area of excavation and infrastructure identified in the scoping report. Therefore, the site no longer includes areas of former runway / large areas of hardstanding. No material from the earthworks will be moved off site – details of the proposed cut and fill are provided in chapter 2 of the ES.
Depending on the potential impacts associated with temporary inert waste recycling (crushed	As the former runways / large areas of

Comment	Response
concrete from former runways etc.), there is every likelihood that the ES should include a section on waste, which would update the information contained in paragraph 18.2.	hardstanding are no longer included within the site, there will be limited need for recycling of inert waste, so the ES does not include a section on waste. Construction waste management is discussed in the Waste Management Strategy submitted in support of the application.
A clear understanding of what must be delivered prior to any phased development must be agreed with the council and the ES should identify the various phases of the development and what will be delivered when. The local use of groundwater in the area makes the site highly vulnerable to pollution, and the ES must include a scheme to deal with the risks associated with contamination. The ES should include a comprehensive preliminary risk assessment with associated conceptual site model.	Chapter 2 sets out the proposed development phasing. The potential for adverse effects on groundwater and risks from contamination, including a conceptual site model, are examined in chapter 10 of the ES.
Consideration of flood risk should extend to the impacts of treated effluent discharge through Uttons Drove Sewage Treatment Works (STW), as well as the capacity of the Swavesey Drain to accept flows, and the effect of discharge at times of high flows within the River Great Ouse. Provision for when Webbs Hole Sluice is tide locked also needs to be adequately considered.	The flood risk assessment summarised in chapter 11 of the ES and provided in full in technical appendix H includes consideration of the potential for effects arising from the discharge of treated effluent.
The hydraulic capacity of the Swavesey Drain system and the implications of the run-off of water from the site are matters of concern for local communities due to the limited residual capacity in the receiving systems. Moreover, the impact of nearby receiving systems being used up by the flows from Uttons Drove STW, and the potential impact on nearby villages, needs to be adequately considered.	The potential for effects on flood risk to nearby villages as a result of increased discharges is examined in chapter 11 and technical appendix H.
The ES should include a description of any indirect or secondary effects of the development on the environment. From a water quality perspective, the greatest impact is more likely to be manifest on the Swavesey Drain as a result of an increased discharge rate from Uttons Drove STW.	The potential for effects on the hydrology of the Swavesey Drain is examined in the flood risk assessment and chapter 11 of the ES.
The ES should reference the Water Cycle Strategy (WCS) and the findings should be incorporated into the development proposal.	The WCS has been used to inform the water, flooding and drainage assessment set out in

Comment	Response
	chapter 11 of the ES.
The status of the Over Railway Cutting County Wildlife Site should be checked following the construction of the guided busway.	Over Railway Cutting CWS has been restored following the construction of the busway, so it has been included in the natural heritage assessment.
The ES should consider the impact on water features and licensed and unlicensed abstractions, as well as the provision of mains water to the proposed development.	The potential for effects on water features, abstractions and mains water provision are examined in chapter 11 of the ES.
Northstowe is intended to be an exemplar of sustainability and therefore measures such as sustainable drainage systems will be appropriate as mitigation, rather than may be appropriate. Within the hard landscaped areas, serious consideration must be given to incorporate tree pit design as part of the storm water management of these areas.	Sustainable drainage systems are included within the proposals, as set out in chapter 2 of the ES.
Uttons Drove has been shown to have reached capacity due to the inability of the downstream watercourse to receive additional flows of treated effluent from the works. The ES should demonstrate that none of the receiving watercourses in the locality would be adversely affected by treated effluent (volume and quality) as a result of the proposed development. The means of conveyance of raw sewage from the development should be outlined and protection measures for the pipework (from ingress of surface water) should be outlined to avoid a repetition of the flooding problems experienced on the Cambourne development.	The potential for effects on local watercourses as a result of increased discharges of treated effluent is examined in chapter 11 of the ES and the FRA in technical appendix H. Full details of the proposed means of conveyance of sewage are set out in the Strategic Utilities Report submitted in support of the application, and summarised in chapter 2 of the ES.
The costs associated with the construction of the new balancing ponds in the southern areas of excavation, involving the council's award drains, will need to be assessed. These costs will need to be spread over the whole Northstowe site and it will not be possible to create the new ponds in a phased manner. The ES should therefore assess water flooding and drainage impact / mitigation for the entire envisaged development as a whole.	The potential for cumulative effects on flood risk is examined in chapter 14 of the ES.
The approach to cumulative effects is accepted.	Noted.
Cumulative impact should include any significant consented scheme, together with any allocations for development or submitted applications of considerable scale. Whether	As the early phases of Home Farm have already been constructed, this scheme has been taken into

Comment	Response
significant cumulative effects are or are not likely to arise from a particular development will vary from topic to topic. For the purposes of the ES, the following developments should be considered: • Recent or other developments in Longstanton, such as Home Farm • North West Cambridge – University site • Orchard Park • NIAB 1 and 2	account in the individual ES topic chapters as part of the existing and future baseline. The Orchard Park, NIAB 1 and University site developments are all several kilometres from the Northstowe site, so are only considered in the traffic, air quality and noise assessments. Traffic movements associated with these schemes are included within the CSRM as committed developments, so have been taken into account in the future baseline of these assessments (ES chapters 7, 8 and 9). NIAB 2 has not reached the application stage and is not included within the CSRM. In line with good practice guidance[1], this development has not been considered in the ES.
It is unlikely that all disciplines will identify cumulative effects, and indeed many of the environmental issues to be addressed will be site or study area specific only. Consideration of cumulative effects should be undertaken where significant cumulative effects are considered likely, for example where resulting from development within the wider Cambridge area, road networks and provision of facilities. Particular examples of how cumulative effects might be considered are: • Transport – the implications of relevant sites in combination on the road network should be tested within the modelling of the TA • Air / noise – these disciplines assess and rely on inputs from traffic flow data and will therefore need to be assessed and related to the overall traffic generation on the network	See above response.

[1] The draft *Environmental Impact Assessment: A guide to good practice and procedures* (DCLG, 2006) states that "in most cases, detailed consideration of the combined effects of the development proposed together with other developments will be limited to those others that are already begun or constructed or those that have not been commenced but have a valid planning permission…in the context of EIA the term 'committed development' conventionally refers to development for which consent has been granted" (paragraphs 124 and 125).

Comment	Response
to determine a worst case scenario • Socio-economic considerations	
The scoping report needs to reflect the environmental credentials of Northstowe, outlined in the adopted Northstowe Area Action Plan, and the aspirations of the local authority and local community. The ES should be explicitly developed to cover the effects of increased carbon dioxide emissions from a climate change perspective and should also include full assessment of measures that can be implemented in order to mitigate the impacts of climate change. This matter should not be left to the energy statement, where it might not receive adequate consideration, as the ES needs to consider how the new development will respond to the effects of climate change. The themes of climate change minimisation and adaptation do not feature significantly in the scoping report, and the relationship with building design, green infrastructure etc. will need to be adequately considered in the ES.	Carbon dioxide emissions are discussed in the Energy Statement submitted in support of the planning application. The potential for changes to arise from climate change are examined on a topic by topic basis in the ES where relevant, for example in the water, flooding and drainage assessment in chapter 11. The influence of climate change on the design of the proposed development is also discussed in the Sustainability Statement submitted in support of the planning application.
The impact of having a development designed for the primacy of sustainable transport needs to be included in all the chapters.	The effects of the proposed access and movement network are primarily examined in the traffic and transport, air quality and noise assessments (chapters 7, 8 and 9), although associated effects on other topics, such as visual, social and ecological effects, are examined in the relevant topic chapters.
The report does not refer to the Code for Sustainable Homes. There are numerous areas where the Code's requirements should be considered, such as the use of recycled materials in the construction phase, and non-residential development of roads and houses. Similarly, any proposed methods of water efficiency in the new homes, to comply with the Code, is encouraged and should be discussed in the ES.	Details of sustainable design measures are provided in the Sustainability Statement submitted in support of the application and summarised in chapter 2 of the ES.

Cambridgeshire County Council

Comment	Response
It is noted that a TA scoping report will be agreed with the county council and that the EIA will summarise the key findings of the TA, focusing on environmental issues and taking account of PPG13 and IEMA *Guidelines on Environmental Assessment of Road Traffic*. It should also take into account the county council's informal guidance on TAs.	The traffic and transport assessment in chapter 7 of the ES and technical appendix D takes account of PPG13 and relevant guidance, including that provided by IEMA and the county council.
The report does not offer sufficient scope for mitigation. It does not mention bus revenue support for new (or extended) bus services, for example.	This was a preliminary identification of potentially appropriate mitigation measures to inform the scoping process. Full details of the proposed transport mitigation measures are provided in chapter 7 of the ES and technical appendix D.
The traffic and transport effects will need to be informed by the associated TA work and A14 transport work, which may affect their significance from that stated in the scoping report.	The traffic and transport assessment reported in chapter 7 of the ES and technical appendix D takes account of the A14 work.
The inclusion of rights of way consideration in the transport section is welcomed, both in terms of effects on the existing network and the need for enhancement to reflect increased population.	Noted.
Rights of way need to be considered as receptors for noise, air quality etc., remembering the build phase as well as final design. Rights of way do not always appear in the document in the right places. The assessment will also need to consider where rights of way are adjacent to land, e.g. Wilsons Road bridleway by the southern excavation area. A concern will be how any new access roads will affect the rights of way network.	The potential for effects on public rights of way is considered in the traffic, air quality and noise assessments (chapters 7, 8 and 9) as appropriate.
It is understood that the promoters are informally seeking stakeholder views on four alternative master plan layouts, including alternative provision for a secondary school. County officers have not yet seen these layouts to assess their impacts, but there are concerns on how previous commitments impact on a perimeter bridleway and retention of the Longstanton-to-Rampton byway (and other public right of way landscape features) and how	Noted.

Comment	Response
they are reflected as a green corridor in the new layout.	
Welcome the inclusion of a household recycling centre and acknowledgement that the RECAP toolkit will be completed to examine the post-construction waste streams. More information on the construction and demolition waste streams is essential at this early stage, particularly to inform the EIA as part of the construction phase.	Details of construction and demolition waste are provided in the Construction Management Strategy and Waste Management Strategy submitted in support of the application.
Acknowledge the earthworks and cut and fill aspirations to enable land raising and re-profiling of the site for drainage purposes, but there is little information on the scale of these activities and the potential impact could be understated. There appears to be no evidence at this stage that this excavated material is fit for purpose.	Details of the proposed earthworks and cut and fill activities are provided in the proposals chapter of the ES (chapter 2).
Demonstrable consideration should be given to the geology of the potential excavation areas and whether digging of the areas would involve the removal of sand and gravel and potential pumping, which could have an impact on dewatering in the wider area.	The geology of the excavation area and the potential for effects on groundwater are examined in the geology, hydrogeology and contamination assessment (ES chapter 10).
What is anticipated to fill these excavations? If waste is likely to be placed into the holes, the landform and after use should be considered as part of this assessment and more information on how they will be backfilled, stabilised and restored needs to be clarified and taken into account. There is potential for significant impacts and potential contamination of any major aquifers located in the vicinity of the proposed excavations. Containment engineering may be necessary to enable waste disposal.	The excavations will become balancing ponds as part of the proposed drainage strategy. No excavations will be filled with waste, so there is no potential for contamination. Details of the excavations and proposed drainage strategy are provided in chapter 2 of the ES.
Paragraph 6.6 of the scoping report acknowledges the energy strategy for the site has not yet been determined, so the potential for emissions of nitrogen dioxide and particulate matter from biomass boilers has been included in the scope of the EIA on a precautionary principle. The delivery of the material to run such facilities should be included as part of the assessment.	The energy strategy for the site does not include biomass boilers, so this topic has now been scoped out of the EIA.
A clear indication of the scale of construction aggregates need is required, as is an understanding of the amount of lorries coming in to and out of the site on a daily basis, the access points, routes to the primary road network and period of time, including if certain time restrictions are being assumed and temporary holding areas being considered during the	Details of the construction phase, including those requested here, are set out in chapter 2 of the ES.

Comment	Response
construction phase.	
Paragraph 15.2 needs to be updated to state the mechanical biological treatment plant at Waterbeach is now operational and is no longer "currently under development". In addition, it would be useful to make it clear it is South Cambridgeshire's municipal waste that is largely managed at the Waterbeach Waste Management Park. As an aside, planning permission for a materials recovery facility has been granted for the Waterbeach site, so once this is built the recyclables currently being sent to other facilities are likely to be dealt with at Waterbeach.	Noted. The management of post-construction waste arising from the proposed development is discussed in the Waste Management Strategy submitted in support of the application.
It appears that the recycling of former airfield runways / hardstanding and the idea of a temporary inert waste processing facility during the construction phase have not been identified. In addition, the limited information on cut and fill aspirations makes it difficult to tell if any waste will need to be moved off site. Such omissions could lead to implications in relation to the waste section of the EIA and also to noise / vibration, air quality and landscape implications that need to be considered. The relevant sections should take account of these additional uses, which could change the outcome of the associated tables. It should also be noted that the re-use of aggregates would significantly reduce the project's traffic impacts, particularly at the early stages of development, where lorry movements associated with concrete / aggregate for road construction could be reduced. Such recycling activities and storage would be best placed as far from residents as possible. It should be clear what assumptions have been made and what impacts will be assessed in these cases.	The finalised application boundary excludes the northern potential area of excavation and infrastructure identified in the scoping report. Therefore, the site no longer includes areas of former runway / large areas of hardstanding. No material from the earthworks will be moved off site – details of the proposed cut and fill are provided in chapter 2 of the ES.
Depending on the potential impacts associated with temporary inert waste recycling (crushed concrete from former runways etc.), there is every likelihood that the ES should include a section on waste, which would update the information contained in paragraph 18.2.	As the former runways / large areas of hardstanding are no longer included within the site, there will be limited need for recycling of inert waste, so the ES does not include a section on waste. Construction waste management is discussed in the Waste Management Strategy submitted in support of the application.
Officers have no biodiversity or climate change comments to make, other than to advise that	Noted. The Green Infrastructure Strategy was

Comment	Response
the applicant should be aware of the new Green Infrastructure Strategy that has just been published, in which Northstowe is designated as a target area. This document should be considered in the EIA.	considered in the preparation of the master plan and details of how this strategy influenced the design are set out in the Design and Access Statement submitted in support of the application.
The site is located in a landscape of high archaeological potential and the impact of the development on the historic environment should be considered as part of the EIA.	The cultural heritage assessment in chapter 5 of the ES examines the potential effects on archaeology and the historic environment.
This assessment should include reference to relevant fieldwork undertaken to inform the previous Northstowe planning applications, and other fieldwork of relevance, such as the archaeological evaluation undertaken in advance of the construction of the golf course (Historic Environment Record Number ECB1089). Additional fieldwork may be appropriate where new areas of land take are proposed that were not included in the previous applications. This information should be used to inform appropriate mitigation, which may include excavation, recording and publication of results, or preservation in situ where this is merited by the significance of the archaeology or considered desirable in the context of the development.	The impact of the development on the historic environment is assessed in chapter 5 of the ES. This includes reference to past fieldwork, the reports of which have been submitted electronically as part of technical appendix B. Details of proposed mitigation are set out in the mitigation strategy included in technical appendix B, and summarised in chapter 5.
County officers would welcome proposals for public presentation and engagement as part of the application to ensure that the results of fieldwork are appropriately disseminated and to contribute to the character and distinctiveness of the emerging new community.	The potential for public engagement in relation to cultural heritage has been considered as part of the proposed mitigation in chapter 5.
Some trenching was undertaken on the golf course, which has been examined in conjunction with the results of previous programmes of work in this area and the results of the extensive geophysical survey.	The results of past surveys informed the cultural heritage assessment, and the reports were submitted electronically as part of technical appendix B.
Not aware of an extant track on the eastern perimeter of the airfield mentioned in paragraph 8.3 of the scoping report.	Noted.
Giant's Hill scheduled monument (number 20452) is located within 2 km of the site.	The potential for indirect effects on this scheduled monument is examined in the cultural

Comment	Response
	heritage assessment in chapter 5 of the ES.
The officers would support the cultural heritage assessment methodology proposed in the scoping report.	Noted.
Officers would recommend the production of a historic environment management plan to support the mitigation of the impact of this development. This would include details of sites / areas to be subject to excavation in advance of development (including infrastructure), details of measures to protect any areas identified for preservation in situ and measures to protect significant structures relating to the military use of the site. Archaeological watching briefs during construction are not considered to be appropriate mitigation for this project.	A detailed mitigation strategy for the historic environment is included in technical appendix B.
Paragraph 3.1 of the scoping report includes proposals for a school. It would be helpful to include a clearer definition of what is being proposed, e.g. site and provision for a two form entry primary school.	Full details of the proposed school are provided in the proposals chapter of the ES (chapter 2).
The potential for new residents to feel excluded or not part of a community in the early days exists and should not be excluded from the assessment. Reference should be made to the *Joint Strategic Needs Assessment on New Communities*.	This issue has primarily been addressed in the HIA submitted in support of the planning application.
It is noted that SCDC expects a community centre with office space to be provided for this first phase of development, which should form part of the likely mitigation measures. Likewise, it is expected that health provision be delivered locally and that services be planned for the first residents, which should be reflected in the temporal considerations of the EIA.	Full details of the proposed facilities, including the phasing of their provision, are set out in chapter 2 of the ES.
A definition of local services would be helpful to set out what is being considered.	Local services are examined in the community, social and economic chapter (chapter 12).
The effects on demand for local businesses is challenged as being 'clearly significant' rather than 'likely significant', given the amount of new residents in this first phase of development.	The potential for effects on local businesses is examined in chapter 12 of the ES.
Northstowe is intended to be an exemplar of sustainable development and therefore such measures should be included. Measures such as sustainable drainage systems will be appropriate as mitigation, rather than may be appropriate.	Sustainable drainage systems are included within the proposals, as set out in chapter 2 of the ES.

Comment	Response
The *Cambridgeshire and Peterborough Minerals and Waste Core Strategy* Proposals Map C shows mineral safeguarding areas, which include Northstowe, and relates to policy CS26 in the Core Strategy. This policy sets out the additional information required in relation to mineral safeguarding areas as part of a planning application. Whilst the application area is already part of an allocation in an adopted local development plan document, in the interests of sustainable development additional information should be provided to show the best use is being made of resources in line with this policy.	It is not considered appropriate to provide further information on minerals, as policy CS26 states that applications for development on land that is allocated in other adopted development plan documents are excluded from the need to consult with the mineral planning authority. It is considered that this issue has already been adequately addressed by the allocation of the site.
Whilst not yet adopted, the *Site Specific Proposals DPD*, which includes allocations at Northstowe for a household recycling centre and inert waste processing facility / facilities, is currently under examination and is anticipated to be adopted in late 2011 / early 2012, so this will also need to be taken into account as part of any future application.	Noted. A household recycling facility is included within the application.

Natural England

Comment	Response
The application site is not located in close proximity to any statutory nature conservation sites, such as SSSIs, and as such these sites are unlikely to be directly affected by the development. However, some statutory sites are also nature reserves that are open to the public. Publicly accessible nature reserves that should be considered in the EIA include the RSPB reserve at Fen Drayton, the Cambridgeshire Past, Present and Future Farming and Wildlife Reserve at Coton, the National Trust Wicken Fen Vision Area and several Wildlife Trust reserves. Such sites could be subject to increased visitor pressure from a significant increase in the local population, resulting in damage to sensitive habitats and disturbance to wildlife. These impacts will need to be fully considered in the EIA, including the cumulative impact of later stages of Northstowe. The need for mitigation through provision of on-site opportunities for informal recreation and provision of improved visitor management	The potential for effects on publicly accessible nature reserves as a result of increased recreational pressure is examined in the natural heritage assessment (ES chapter 6). The potential for cumulative natural heritage effects with the later phases of Northstowe is discussed in chapter 14.

Comment	Response
facilities for local wildlife sites should be addressed.	
There may also be indirect impacts to statutory conservation sites associated with the development of Northstowe through increases in discharges of waste water and pollutants from local sewerage works.	The potential for effects on designated sites as a result of changes to discharges is discussed in the natural heritage assessment.
The biodiversity of the site and its surroundings should be fully identified through appropriate and up to date desk study and field survey information. The desk study should utilise records from the Cambridgeshire and Peterborough Environmental Records Centre and other relevant local groups. Field surveys should aim to fully describe biodiversity receptors that are likely to be of significant value. In addition to the surveys identified for updating in section 12.10 of the scoping report, it is recommended that the need for detailed and up to date botanical and terrestrial invertebrate surveys is also considered. The scoping report does not provide a detailed description of the habitats within the site, but features such as semi-improved grassland, hedgerows and ditches may be of value to these groups.	A range of desk studies and field surveys have been undertaken, including an updated extended phase 1 habitat survey and surveys of butterflies and the white-spotted pinion moth, and the full survey results are included in technical appendix C. The scope of the updated surveys was agreed with SCDC's ecologist in May 2011.
Generally support the proposed scope of the assessment with regard to natural heritage.	Noted.
With regards to gains and losses of habitats within the site, it is recommended that the principles of avoiding harm to existing habitat wherever possible, achieving no net loss of biodiversity and enhancing the biodiversity value of the site above its existing baseline wherever possible are pursued, as required by national planning policy. To aid working to these principles, it is advised that a balance sheet approach to losses and gains of habitats is undertaken, as has been adopted previously at the site. This will allow the suitability of site design, on site mitigation and the need for further off site compensatory habitat creation to be assessed with clarity.	The natural heritage assessment in chapter 6 of the ES sets out the areas of habitats to be lost and created.
Section 12.13 of the scoping report correctly identifies that the detailed mitigation cannot be devised ahead of completing the prior stages of the EIA. However, some further measures are suggested that are likely to be important within the mitigation strategy. Firstly, the principle of creating a functional ecological network within the site should be identified. This will be necessary to avoid harmful effects of habitat fragmentation whereby development results in small areas of habitat becoming isolated and wildlife therefore being	Full detail of the proposed natural heritage mitigation measures are set out in chapter 6 of the ES.

Comment	Response
unable to survive. The master plan will need to be designed to ensure that retained and newly created habitat areas should be connected by appropriately designed wildlife corridors.	
A further consideration within the mitigation for biodiversity will be ensuring that a sufficient quantity of natural habitats are retained and created within the site to avoid them becoming subject to excessive recreational pressure, such as trampling and disturbance. Similarly, the capacity of the site to provide opportunities for informal recreation will need to be sufficient to avoid excessive pressure on other sites in the surrounding area.	The potential for adverse effects on retained habitats and nature conservation sites as a result of increased recreational pressure is examined in chapter 6 and mitigation measures are provided to minimise this.
In terms of habitat creation, off site compensation is likely to be needed for the loss of farmland habitat. This is because arable farmland supports a range of Biodiversity Action Plan priority species, such as brown hare, skylark, corn bunting and yellowhammer, which are unlikely to be readily accommodated within the site.	The potential for effects on species as a result of the loss of farmland habitat is examined in the natural heritage assessment, and appropriate mitigation is identified.
Provision will need to be made for the long term care and management of the network of natural habitats to be created within the site, both through the development of a Biodiversity Management Plan and provision of resources to carry out the management.	Details of proposed mitigation measures, including habitat management, are provided in chapter 6 of the ES.
Satisfied with the proposed scope of the landscape assessment. Note that whilst the site falls within the Bedfordshire and Cambridgeshire Claylands national character area, it is also close to the neighbouring character area of The Fens. The landscape may well be transitional and contain features characteristic of a fen edge landscape.	The landscape and visual assessment (ES chapter 4) includes consideration of the characteristics of the landscape on site and in the surrounding area.
The likely mitigation measures identified include a high quality and sensitively designed master plan. To achieve this, suggest the design will need to focus on including features that will augment the local landscape character to help ensure the proposals are distinctive.	Noted. Details of how the master plan was designed to minimise adverse landscape and visual effects are provided in chapters 2 and 4.
Due to its multi-functional nature, green infrastructure does not fall neatly into any of the proposed ES chapters, but it does make a vital contribution to many aspects of sustainable development. For example, the green space network within a new development must contribute significantly towards achieving sustainable travel, opportunities for informal recreation, healthy lifestyles, flood attenuation and climate change adaptation.	Noted.
The proposed ES includes a chapter on community, economic and social effects. It is noted that the key issues of this chapter do not include evaluating the impact of the development	The effects of the development design on health and wellbeing, including the use of green

Comment	Response
design on the health and wellbeing of the future residents. Should SCDC deem this to be a relevant consideration for the EIA, then provision of green space should feature as it is thought to influence life expectancy, obesity-related health problems and incidents of mental illness.	infrastructure, are examined in the HIA submitted in support of the application. The findings of the HIA are summarised in chapter 12 of the ES.
The themes of climate change minimisation and adaptation do not feature significantly in the proposed ES. The roles of green infrastructure in providing attractive options for sustainable transport and in mitigating the urban heat island effect are significant in this context. If SCDC requires climate change to be addressed by the EIA, its relationship with green infrastructure should be taken into account.	The influence of climate change on the design of the proposed development is discussed in the Sustainability Statement submitted in support of the planning application.
Attention is drawn to the Accessible Natural Greenspace Standard (ANGSt), which sets out recommended levels of accessible green space. Analysis of ANGSt across Cambridgeshire has identified that the area where development is planned currently falls within the recommended catchment of a 500 ha site, but is deficient at the level of more local sites, in particular the 2 ha and 20 ha elements of the standard. The provision of a suitable level and distribution of on site informal green spaces will therefore be vital in providing the new community with ready access to this resource.	Noted. The provision of open space is discussed in detail the Design and Access Statement submitted in support of the application.

Environment Agency

Comment	Response
In view of the development of Northstowe now potentially being delivered in stages over an extended time period, a clear understanding of what must be delivered prior to any phased development must be agreed at an early stage with the local authority as part of associated planning conditions.	Noted.
It would be prudent for any revised EIA to identify the various phases of the development and what will be delivered when. This will also reduce the need to go through the whole process again when any phase 2 applications are potentially progressed.	Chapter 2 of the ES sets out the phasing of the proposed development. Full details of subsequent phases have yet to be determined.

Comment	Response
The principles for the surface water drainage of the whole development of Northstowe were previously agreed. However, they were always subject to detailed design identifying the phased implementation. As the area is politically sensitive, particularly with regard to flood risk issues, any revised drainage strategies will need to be agreed prior to submission as part of any planning application.	The revised drainage strategy has been agreed with the Environment Agency.
The Environment Agency currently holds an objection to the previous application, owing in particular to insufficient details regarding surface and foul water drainage issues (a copy of the previous letter, dated 26 March 2008, was attached to the scoping response and is included in appendix 2). The revised EIA may wish to address some of these issues.	Details of the proposed surface water drainage strategy are set out in the FRA in technical appendix H, while details of foul water drainage strategy are set out in the Strategic Utilities Report submitted in support of the application. Both strategies are summarised in chapter 2 of the ES.
The western section of the primary development area is located on a secondary A aquifer, River Terrace Deposits of Sand and Gravel. Secondary A aquifers are permeable geological strata capable of supporting water supplies at a local scale, and in some cases form an important source of base flow to rivers. The overlying soils at the site are classified as having an intermediate leaching potential, meaning they can moderately transmit a wide variety of pollutants to the groundwater. The local use of groundwater in this area makes the site highly vulnerable to pollution.	The potential for effects on groundwater, and associated mitigation measures, are considered in the geology, hydrogeology and contamination assessment (ES chapter 10).
Section 9 of the EIA Scoping Report lists potential sources of contamination to include the golf course and its car park, the former railway line to the east of the site, a farm and the former Oakington Barracks and airfield to the south. These land uses are identified in table 2.1 of Planning Policy Statement 23 (PPS23) as uses that may be affected by contamination. The Department of the Environment Industry Profiles for these land uses indicate that potential contaminants include hydrocarbons, metals and polycyclic aromatic hydrocarbons. These substances have the potential to move from the soil into groundwater. The ES must therefore include a scheme to deal with the risks associated with contamination. Without this information, the risk posed to groundwaters and inland fresh waters is considered to be	The potential risks to the water environment from mobilisation of existing contamination, and mitigation measures to minimise this, are examined in chapter 10 of the ES.

Comment	Response
unacceptable and the Agency will object to the development in accordance with PPS23 and policy P9-6 of its *Groundwater Protection: Policy and Practice* document.	
The ES should include at least a comprehensive preliminary risk assessment (PRA), with associated conceptual site model. The PRA should include historical plans of the site at original scales and an understanding of the site's environmental setting, including geology, hydrogeology (including the interaction between all relevant shallow and deep groundwaters and how they flow to potential receptors), location and status of relevant surface water and groundwater receptors, identification of potential contaminants of concern, source areas and information on pollutant pathways. Pictorial representations, preferably scaled plans and cross sections, will help support the understanding of the site as represented in the conceptual site model.	The geology, hydrogeology and contamination assessment includes a conceptual site model and preliminary risk assessment. The findings of the assessment are summarised in chapter 10 and the full details are included in technical appendix G.
It is recommended that developers: • Follow the risk management framework provided in *CLR11: Model Procedures for the Management of Land Contamination* when dealing with land affected by contamination • Refer to the Environment Agency's *Guiding Principles for Land Contamination* for the type of information required in order to assess risks to controlled waters from the site. The local authority can advise on risks to other receptors, e.g. human health • Refer to the Agency's website for more information	The geology, hydrogeology and contamination assessment followed relevant guidance, including that set out here.
As with any development, the protection of wildlife and supporting habitats should be ensured and opportunities secured for the enhancement of the nature conservation value of the site in line with national planning policy. Planning Policy Statement 9 (PPS9) requires that planning decisions should prevent harm to biodiversity interests and should also seek to enhance and expand biodiversity interests where possible.	The natural heritage assessment in chapter 6 of the ES includes details of measures to minimise adverse effects on biodiversity and provide ecological enhancement.
An ecological survey is required prior to the development of detailed plans to enable an assessment of the level of risk posed by the development. Without such information, it is not possible to judge whether the proposals would meet the requirements of PPS9 requiring planning decisions to be "based on up to date information about the environmental characteristics of their areas". The detailed design, construction, mitigation and	A range of ecological desk studies and field surveys have been undertaken, and the full survey results are included in technical appendix C.

Comment	Response
compensation measures should be based on the results of a survey carried out at an appropriate time of year by a suitably experienced surveyor using recognised survey methodology.	
The survey and risk assessment should: • Identify any rare, declining, protected or otherwise important flora, fauna or habitats within or likely to be affected by the site, including the potential areas of excavation • Assess the importance of the above features at a local, regional and national level • Identify the impacts of the scheme on those features • Demonstrate how the development will avoid adverse impacts • Demonstrate how the development will retain and protect existing ecological features • Propose mitigation for any adverse ecological impacts or compensation for loss • Propose wildlife / habitat enhancement measures • Propose post-project appraisal, management plans and management responsibilities with details of how biodiversity enhancement will be incorporated into the development and maintained over the long term	The natural heritage assessment in chapter 6 and accompanying survey results in technical appendix C fulfil these requirements.
The status of the Over Railway Cutting County Wildlife Site should be checked following construction of the guided busway.	Over Railway Cutting CWS has been restored following the construction of the busway, so it has been included in the natural heritage assessment.
The applicant shows a positive approach to waste management at the construction and post-construction phases and has addressed many of the issues with regard to waste. The site will adhere to the Site Waste Management Plan Regulations and by doing so minimise and recycle waste using permitted waste sites and carriers.	Noted.
The use of recycled materials in the construction phase should consider the Code for Sustainable Homes and non-residential development of roads and houses.	This issue is examined in the Construction Management Strategy and Waste Management Strategy submitted in support of the application.
The design of the development should incorporate waste storage containers and safe collections of waste.	Details of waste storage arrangements are set out in the Waste Management Strategy submitted in

Comment	Response
	support of the application.
The ES should include a description of "the likely significant effects of the development on the environment, which should cover… any indirect, secondary…effects of the development…" as directed by Part 1 of Schedule 4 of the EIA Regulations.	The assessments set out in the ES (chapters 4 to 13) provide a description of the likely significant effects of the development.
From a water quality perspective, it is important to recognise that the greatest impact of the proposed development is more likely to be manifest on the Swavesey Drain as a result of an increase in the discharge rate from Uttons Drove sewage treatment works. Sections 16.12 and 16.13 of the scoping report acknowledge this, but the table in appendix B also needs to reflect this risk. At present it merely highlights a potential impact on ponds and ditches in the immediate environs of the site during construction.	The potential for effects on the hydrology of the Swavesey Drain as a result of increased discharges from Uttons Drove is examined in the FRA in technical appendix H and chapter 11 of the ES.
Much of the assessment proposed by the scoping report has already been carried out in the guise of a detailed Water Cycle Strategy (WCS) for the Cambridge area. The WCS identifies potential water services infrastructure and water quality issues associated with planned growth at Northstowe and other large developments in the wider district, and recommends measures to address them. As such, the evidence required by the ES is already in the public domain. The ES should reference the WCS and only needs to provide additional information and assessment for any scenarios not already covered.	The WCS has been used to inform the water, flooding and drainage assessment set out in chapter 11 of the ES.
The findings and recommendations of the WCS should be incorporated into the development proposal and a statement to confirm this should be included in the ES.	Chapter 11 of the ES discusses how the WCS informed the development proposals.
The ES should consider the provision of mains water to the proposed development. The development lies within the area traditionally supplied by Cambridge Water Company, although the developer may choose to take supply from another company and the Agency would encourage consideration of minimising the environmental impact of providing a water supply. It is assumed that water will be supplied using existing sources and under existing abstraction licence permissions. Advice should be sought from the water company to find out whether this is the case, or whether a new source needs to be developed or a new abstraction licence sought. The Environment Agency may not be able to recommend a new or increased abstraction licence where water resources are fully committed to existing	Full details of water supply arrangements are set out in the Strategic Utilities Report submitted in support of the application, and summarised in chapter 2 of the ES.

Comment	Response
abstraction and the environment.	
Any proposed methods of water efficiency in the new homes are encouraged and should be discussed in the ES. The Agency encourages the developer to explore the issue of efficient use of water in the home with Cambridge Water. It is assumed that new houses will be constructed with water meters fitted. Other water saving features that the Agency wishes to see incorporated include low flush toilets, low flow showerheads, water butts for gardens etc.	Details of proposed methods of water efficiency are set out in the Water Conservation Strategy submitted in support of the application, with a brief summary provided in chapter 11 of the ES.
The ES should consider impacts to water features and licensed and unlicensed abstractions. It is the responsibility of the developer to ensure that the development will not affect any water features (i.e. wells, boreholes, springs, streams or ponds) in the area, including licensed and unlicensed abstractions. There are two licensed abstractions within a 2 km radius of the site, one of which is held by the Cambridge City Golf Course and is within the proposed development site. Certain private water supplies do not require a licence and the Agency is therefore not necessarily aware of their existence. The locations of private domestic sources may be held by the district council on the register required by the Private Water Supplies Regulations 1992.	The potential for effects on water features and abstractions is examined in chapter 11 of the ES.

Highways Agency

Comment	Response
It is likely that all the Agency's responses relating to the scoping of the EIA will be directly concerned with the Transport Assessment scoping, which is being worked on in parallel. As such, the Agency prefers not to comment at this stage.	Noted.

RSPB

Comment	Response
Agree that natural heritage should be scoped into the ES.	Noted.
Recreational impacts from the proposed development on designated sites and nature reserves should be examined. Do not accept the 2 km boundary for assessing impacts on internationally or nationally designated sites because no evidence has been provided to justify this arbitrary distance. While 2 km might arguably cover direct impacts, the EIA should also assess indirect impacts.	The potential for indirect impacts on designated sites and nature reserves is examined in the natural heritage assessment (ES chapter 6) over a wider radius.
Phase 1 includes 1,500 dwellings. Each dwelling could contain between one and five people and so the number of additional people introduced into the area could range from 1,500 to 7,500. If a mid-range figure of 4,500 is taken, this could have a significant environmental impact through people travelling to designated sites beyond 2 km away for recreational purposes such as dog walking. This could lead to a range of detrimental impacts on designated sites, such as the Ouse Washes (SSSI, SPA and SAC) and the Brecklands (SSSI, SPA and SAC). This would be associated with damage to habitat through over use, erosion of paths, disturbance to key species and increased incidents of vandalism or inappropriate use (e.g. off-road motorcycling and fly-tipping).	The potential for recreational impacts on designated sites is examined in the natural heritage assessment.
Expect to see as part of the mitigation section of the natural heritage chapter sufficient green space integrated into phase 1 to minimise the impact on designated sites and local wildlife sites. Recommend this is undertaken in line with best practice guidance set out in *Planning Policy Statement: eco-towns – a supplement to Planning Policy Statement 1*. It is important that any proposed green infrastructure is incorporated into an overall master plan / landscape strategy for the site and this is presented in the EIA.	The provision of green space forms an integral part of the proposed development, as set out in chapter 2 of the ES and the mitigation section in the natural heritage assessment (chapter 6) discusses the new habitat creation.
The ES should assess the impact of the proposed development on farmland birds. This could be significant through loss of the agricultural habitat on site, habitat fragmentation and loss of food. Many farmland bird species have undergone well documented population declines and range contractions in the UK since the mid-1970s. Reduced availability and abundance of winter seed food, summer food and nesting habitat have been identified as key limiting	The potential for effects on bird species as a result of the loss of farmland habitat is examined in the natural heritage assessment, and appropriate mitigation is identified.

Comment	Response
factors. It is important that there is no net loss of biodiversity. Any loss of farmland habitat should be compensated for in situ, but if this is not possible then off site compensatory habitat should be provided. Various beneficial measures for farmland birds could be incorporated, such as wild bird covers and skylark plots.	
The impacts of the proposed development on protected species should be assessed for both the construction and post-construction phases. It is noted that surveys undertaken for the site have found evidence of water voles, badgers, common pipistrelle, grass snake and common lizard. Where possible, any impacts on these species should be avoided, but if this is not possible suitable mitigation and enhancement measures should be provided in the EIA.	The potential for effects on protected species, and associated mitigation and enhancement measures, are examined in the natural heritage assessment (ES chapter 6).
Agree that water, flooding and drainage should be scoped into the ES.	Noted.
The impact from Northstowe on water quality should be assessed, particularly in regard to designated sites. The Ouse Washes is a wetland of major international importance comprising seasonally flooded washlands, which are agriculturally managed in a traditional manner. It provides breeding and winter habitats for important assemblages of wetland bird species, particularly wildfowl and waders.	The potential for effects on designated sites as a result of changes to discharges is discussed in chapter 6 of the ES.
The Ouse Washes has been identified as a site where water level management is key to keeping the site in a favourable condition. Understand that foul flows from the proposed development are likely to be pumped to Anglian Water's Uttons Drove Sewage Treatment Works, where after treatment they will be discharged into Swavesey Drain. This then flows north to the Great Ouse. Uttons Drove is currently close to capacity and would not have the capacity to take the additional sewage from Northstowe. Therefore, there is a risk of a pollution incident that could affect the Ouse Washes unless additional infrastructure is put in place in line with the development. In addition, the increased foul flows to Swavesey Drain could increase the loadings of phosphorus and nitrogen, which could detrimentally impact water quality in the Ouse Washes.	The potential for effects on the Ouse Washes as a result of the discharge of treated effluent is discussed in the natural heritage assessment in chapter 6.
The impact of increased surface water run-off should be assessed. Understand that surface water run-off from the proposed development is likely to be discharged to Longstanton Brook, which runs through the west of the southern potential area of excavation and	The potential impact on the hydrology and flood risk of local watercourses, including Swavesey Drain, is examined in detail in the flood risk

Comment	Response
infrastructure work. Longstanton Brook eventually becomes Swavesey Drain, which flows through Middle Fen County Wildlife Site (part of the RSPB Fen Drayton site). The site already floods during the winter and, due to the management of the Great Ouse and the Washes, flooding appears to be becoming more frequent. Need to be reassured that there will not be an increased frequency of flooding from Swavesey Drain when the Ouse itself is in flood and the quality of any water coming down Swavesey Drain will be acceptable even in times of flood.	assessment in technical appendix H and summarised in chapter 11 of the ES.
The impact from the proposed development on water resources should be assessed. The East of England is one of the driest regions in the country and it is understood that in the area around Northstowe there is currently no water available at low flows for new abstraction licences, and only limited water at high flows. This suggests that, unless water efficiency measures are integrated into the proposed development, it could have a significant effect on water resources.	The impact of the proposed development on water resources is examined in chapter 11 of the ES. Details of proposed water efficiency measures are set out in the Water Conservation Strategy submitted in support of the application.
Agree that a chapter on cumulative effects should be included in the ES. This should consider the cumulative recreational impact of all phases of Northstowe on designated sites and local wildlife sites. In addition, the ES should assess the cumulative impact from any other large developments taking place near to Longstanton.	The cumulative effects assessment is set out in chapter 14 of the ES.
It is anticipated that Habitats Regulations Assessment screening will need to be undertaken by SCDC.	Noted.

Sport England

Comment	Response
Pleased that the ES will address community, economic and social effects, including the issues of the introduction of new public open space and rights of way and the loss of the existing golf course.	Noted.
This section should also cover potential impacts on any existing rights of way, footpaths, bridleways etc.	The potential for effects on existing public rights of way is examined in the community, social and economic chapter in terms of amenity and any diversions, and in the traffic and transport chapter in terms of effects on overall provision.

NHS Cambridgeshire

Comment	Response
As part of the Cambridgeshire Joint Strategic Needs Assessment process, a *JSNA New Communities 2010* report was produced. The developers should use this as a reference when developing their planning proposals.	The HIA submitted in support of the planning application had regard to the JSNA reports.
In line with SCDC's LDF Policy and Supplementary Planning Document on HIA, it is recommended that a HIA is integrated with the EIA. As there are many features in a HIA that overlap with an EIA, this would avoid carrying out duplicate assessments and would ensure a more holistic approach.	Given the scale, nature and scope of the HIA, it was considered appropriate to submit this as a separate supporting document, rather than as part of the ES. However, the findings of the HIA were informed by the EIA and are summarised in chapter 12 of the ES.
An integrated EIA / HIA will also provide the opportunity to bring in some more specific issues / questions related to population health.	See above response.
The Spatial Planning and Health Group (SPAHG) publication *Steps to Healthy Planning: Proposal for Action* contains a checklist of issues / questions that should be used.	The HIA has referred to this guidance and includes a completed checklist.

Comment	Response
In the previous Northstowe application, many of the HIA issues were also contained in other documents, with little or no cross referencing between them, e.g. transport issues. This made it very difficult and time consuming to make comments. Would like to see all the health issues brought together in the HIA / EIA and to tie in logically / cross reference with the other documents in the planning application.	The HIA is the primary submission document dealing with health issues, and cross references are made within the other application documents to the findings of the HIA as appropriate.
Social infrastructure should be given special attention. In the past, NHS Cambridgeshire has worked closely with SCDC to look at the social factors that contribute to good health and the risk of not taking these into account, as well as the physical aspects, when planning a new community. The *Building Communities that are Healthy and Well in Cambridgeshire* report looks at this aspect in more detail and provides a set of 'people proofing principles' and people outcomes. These outcomes can be used in a HIA and are particularly important for monitoring health outcomes once a development has commenced.	Social infrastructure effects are examined in the HIA.
The importance of the social environment in contributing to good health is highlighted in Cambridgeshire's JSNA. It is important that this is fully recognised in any new planning application. In appendix B of the scoping report, it states that "the nature of the proposed development means that it will not affect social inclusion". There is evidence to the contrary and this should be considered in the scoping process.	The effects of the proposed development on health as a result of changes to social inclusion are examined in detail in the HIA.
The scoping report also suggests that the development will not affect local lifestyles or standards of living. Lifestyles have a significant impact on health and land use planning influences lifestyles, e.g. through opportunities for walking and cycling, availability of fresh food etc. Lifestyle issues also need to be included in the scoping study.	Lifestyle issues are examined in detail in the HIA.
It is important to make an assessment of the overall plan for Northstowe and then to assess phase 1, both in relation to the overall plan and as a stand alone assessment. There may be considerable risks if only phase 1 is delivered or if there is a considerable gap between completion of the first phase and the construction of the rest of Northstowe. Given the pattern of delays on major projects during the economic downturn and uncertainties about the A14, the likelihood of a stand alone phase 1 is not remote. That risk needs to be clearly acknowledged and measures to mitigate the impact on health and wellbeing described in the	As the HIA is submitted in support of the phase 1 application, this forms the primary focus of the report.

Comment	Response
EIA / HIA.	
The EIA / HIA process will need to give careful consideration to the indicators that are used to make baseline assessments; for some areas there will be limited data until the first settlers arrive. It is important that indicators are selected that can be used to monitor progress on an ongoing basis to assess the effects on the environment and community health at different stages of the development. This is important so that remedial measures can be put in place if required. Consideration should be given as to how the monitoring complements / integrates with other sections of the planning application, for example the sustainability appraisal, that also contain monitoring information.	Details of the indicators used, and the rationale for their selection, are provided in the HIA submitted in support of the planning application.
Spatial planning has the potential to enable and enhance good mental health and wellbeing. A recent Mental Wellbeing Impact Assessment toolkit, updated in 2011, provides a comprehensive framework on the areas that influence mental health. It includes sections on the wider determinants of health that influence wellbeing, such as the built environment, but it also covers social inclusion and social relationships. It is an extensive resource that could be used to complement an EIA or HIA.	The HIA has had regard to the Mental Wellbeing Impact Assessment Toolkit.

Cottenham Parish Council

Comment	Response
The response deals with the completed development, not just the first phase, and is based on the parish council's response to the 2007 application. There appears to be a lack of holistic consideration, and event statistical evidence, of the cumulative effects of the number of developments and potential developments in the Cambridge area.	A cumulative effects assessment has been undertaken and is reported in chapter 14 of the ES and the rationale behind the consideration of cumulative effects is explained in chapter 3.
What statistical evidence did exist in the previous ES had major flaws in it, both in assumptions and measurement. For example, no consideration was given in the 2007 ES to the effect on traffic flows through Cottenham via the Oakington Road caused by journeys to and from the nearest railway station at Waterbeach. The statistics that did exist for that	Noted.

Comment	Response
stretch of road were obviously erroneous.	
On water, flooding and drainage, there was considerable concern that the full implication of the run-off of water from the site into the Cottenham Lode system had not been fully considered in the 2007 ES.	The potential for effects on the hydrology of the Cottenham Lode system is examined in chapter 11 of the ES and in the FRA in technical appendix H.
With the A14 upgrade in abeyance, the potential extra traffic could well affect local villages to a considerable degree. For the foreseeable future, the A14 will remain heavily trafficked. If it is too heavily trafficked for the extra journeys created by even this relatively small development (such as people travelling to / from Cambridge, to Waterbeach Station or to work at the business area on the A10), a potential diversion route that might be used could be through Longstanton, across the old airfield to Oakington, then one of two ways to Cottenham and out through Landbeach village or to the A10 directly. None of the roads are capable of coping with the present level of traffic, let alone any increase, and this could happen regardless of the number of houses.	The potential for effects on traffic levels on the local road network are assessed in detail in chapter 7 of the ES and in the transport assessment in technical appendix D.
The Chesterton station development is awaiting the appointment of a new rail franchisee before it can be considered, so the effect on local villages could be considerable.	Noted.
Guided bus use should be considered. The guided bus already seems unable to cope with peak demand.	The potential for effects on use of the guided bus is examined in chapter 7 of the ES and technical appendix D.
The work places of potential inhabitants and the number of workers travelling to / from Northstowe should be considered. Assuming that there will be some industrial development in the first phase, is there a figure for the number of people employed in Northstowe who will live there? It could be that many will live there and work elsewhere, and that many will need to come into Northstowe to work. This could contribute considerably to traffic issues, so there is a need to look at alternative provision (e.g. extended guided bus system and other sustainable transport methods).	Full details of the trip generation and assignment relating to the proposed development, including trips to and from work and associated assumptions, are set out in the transport assessment in technical appendix D.
A proper system of cycle routes to connect with the various key areas mentioned above should be provided.	The proposed network of cycle routes is shown on the access and movement parameter plan in

Comment	Response
	figure 2.5 of the ES.
No building materials should be transported through local villages.	The construction traffic route set out in chapter 2 of the ES has been designed to avoid local villages.
If Northstowe is to be developed in stages, it is highly probable that much of the original infrastructure, and many of the amenities, will be slow to materialise. There is therefore likely to be pressure on nearby villages to provide school places, medical care and social facilities (particularly for sports).	The potential for increased pressure on services and facilities in local villages is examined in the community, social and economic assessment (ES chapter 12).
The assessment of impact on, and thus the potential for section 106 provision for, such facilities must be approached differently. Based on the 'affordability' of amenity at Northstowe, the proposed 1,500 dwellings will afford a much poorer provision than that envisaged from the 9,500.	Details of the proposed section 106 contributions are set out in the draft Heads of Terms appended to the Planning Supporting Statement submitted in support of the application.

Girton Parish Council

Comment	Response
As part of the planning application for the 9,500 dwelling scheme, WSP carried out a flood risk assessment in December 2007. A revised FRA will be required for the modified scheme. It appears from the 2007 FRA that the developer is willing to invest in "upstream attenuation facilities to help mitigate existing flooding problems in Oakington and Longstanton villages" (but not for Girton). These mitigation measures consist of four balancing ponds adjacent to Longstanton and Oakington brooks.	The revised FRA is included in technical appendix H.
As Girton is upstream of Northstowe and about 5 km distant, Girton village is unlikely to be affected by possible contamination of soil and groundwater. There is a remote possibility that contaminated material could be deposited on local roads by passing lorries during the construction phase.	The construction traffic route shown in chapter 2 of the ES will not route HGV traffic via Girton.
There are two catchments that will be used to accept additional flows from the Northstowe	An assessment of the potential impacts on these

Comment	Response
development: a) Beck Brook / Oakington Brook / Reynolds Drain / Cottenham Lode and awarded watercourses and b) Longstanton Brook / Swavesey Drain / Webbs Hole Sluice. Both these catchments discharge to the River Great Ouse either by gravity or pumping, depending on the downstream water levels. These levels depend on the amount of rainfall in the River Great Ouse catchment and / or tidal levels in the North Sea.	catchments is set out in the FRA in technical appendix H and summarised in chapter 11 of the ES.
Catchment a) is of greater interest to Girton in view of the serious flooding that occurred in Girton and Oakington during the October 2001 flood. According to the 2007 FRA, mitigation measures will be provided to contain the 1 in 200 year flood, with an extra 20% allowance for climate change to ensure that no additional flows will be transmitted to local drains during a major flood. These measures will depend on balancing ponds, pumps and telemetry systems for correct functioning. Girton Parish Council would have some concerns in the event that the mitigation did not perform in accordance with the design.	The FRA in technical appendix H contains full details of the proposed drainage strategy and flood prevention measures, which are summarised in chapter 2 of the ES.
Catchment b) is of less interest to Girton because the Swavesey Drain system is remote from Girton. However, Uttons Drove Sewage Treatment Works discharges treated effluent to Longstanton Brook and this STW has been chosen to accept sewage flows both from Northstowe and Cambourne. If the hydraulic capacity of the Swavesey Drain system is used up by these flows, then there may be a risk that surplus surface water flows from Northstowe might be diverted to Cottenham Lode, causing the Beck Brook to back up and increasing the flood risk to Girton.	The FRA in technical appendix H includes consideration of the potential for effects on flood risk and local hydrology as a result of increased discharges from Uttons Drove.

Histon Parish Council

Comment	Response
Agree that the scoping study has addressed all aspects of the phase 1 development for Northstowe.	Noted.
Concerned that the only mitigation measures suggested for community, economic and social effects are to provide section 106 funding towards local services and facilities.	This was a preliminary identification of potentially appropriate mitigation measures to inform the scoping process. Full details of the proposed community, economic and social mitigation measures are provided in chapter 12 of the ES.
It is important that, in order to mitigate the effect of phase 1 of Northstowe, community facilities such as schools, shops, employment, medical and dental surgeries, and recreation facilities are in place before any dwellings to avoid such facilities in surrounding villages being swamped. Employment issues and demand for local businesses are significant. Without mitigation, the scale of effect is large, not small.	The proposed phasing of new facilities in relation to the residential development is set out in chapter 2 of the ES. The potential for effects on existing facilities is examined in chapter 12.
The effect of building 1,500 houses at Northstowe on traffic and transport will not be small to medium. Referring to paragraph 14.3 in the scoping report, it is agreed that there is currently serious congestion on the A14, which is adjacent to Northstowe. A mitigation measure that has to be implemented before any development at Northstowe is widening of the A14. Without that, no development should take place at Northstowe.	The potential effects on traffic levels on the local road network is examined in chapter 7 of the ES and in the transport assessment in technical appendix D, which takes account of the most up to date work on the A14.

Willingham Parish Council

Comment	Response
Disappointed that the scoping study appears somewhat short sighted by seeming to largely explore impacts within the immediate area of the development. Section 7.2 of the report refers to Longstanton ward, its community facilities and the increasing pressure these would face as the development proceeds. Clearly the development will have an impact on Longstanton, but the boundary of Willingham ward is only a few hundred metres from the development. In developing the Parish Plan, residents expressed concern about the likely social impacts of Northstowe, especially in the early stages of development, particularly with regard to schools and doctors. It will be important that the development of the Northstowe community facilities proceeds in a manner that does not adversely impact on the facilities of Willingham.	The community, social and economic assessment reported in chapter 12 of the ES has been undertaken at a range of geographical scales, depending on the topic under consideration. For example, the population effects were examined at the ward level, while impacts on local facilities and services considered several local villages, including Willingham.
Chapter 13 of the scoping report deals with the potential to generate noise and vibration during construction, as well as the noise impact of additional road traffic. Again these concerns appear to be in relation to the development itself. Whilst there is a possibility of obtaining locally won aggregates, there is still the probability of construction traffic, including imported aggregates, travelling south to the site through the village of Willingham. This village already suffers from the impacts of noise pollution, particularly from HGV traffic. These impacts need to be more fully understood and mitigated.	The noise assessment in chapter 9 of the ES considers noise generated from construction traffic on a range of receptors adjacent to the proposed construction traffic routes and sets out mitigation measures to minimise adverse effects. The routes are defined in chapter 2 of the ES.
Chapter 14 deals with traffic and transport, an important matter in this area. Paragraph 14.2 notes that Longstanton now has a bypass on the B1050, taking significant traffic away from the village. However, Willingham still waits for a bypass and in the meantime the traffic diverted away from Longstanton will continue to pass through Willingham, along with the extra traffic generated by the development. In this respect, we note that whilst it was originally proposed that the traffic from the development would outfall onto the A14, the proposal for phase 1 is now to feed onto the B1050. Not only will this have an impact on Willingham, but the potential for massive hold ups is significant, given the feeder road, B1050 and guided busway all meeting at the same place. We would expect the developer to	The potential for effects on traffic on the local road network, and associated mitigation measures, are examined in chapter 7 of the ES and in the transport assessment in technical appendix D.

Comment	Response
not only consider the environmental impacts but also the need for a Willingham bypass to mitigate the impacts of this development. The need for a bypass is already accepted by the county council.	
We note from paragraph 14.7 that traffic flows will be obtained from the CSRM. From what we have seen previously, we would have doubts about the validity of this model. In meetings with the county council we outlined a number of outputs in the model that were a far cry from the prototype.	Noted. The use of the CSRM has been agreed with the county council.

Longstanton and District Heritage Society

Comment	Response
Consider the scoping report and any applications that may subsequently be submitted to be totally premature until the applications presently submitted to the authority for the complete Northstowe development are determined and decisions are issued. Section 17 of the scoping report itself exposes these difficulties.	The rationale behind the submission of the new application is explained in detail in the Planning Supporting Statement submitted in support of the application.
Do not consider that the authority can give any opinion on the phase 1 report without knowing how phase 1 will interact with the whole development, and in turn what the effects of that development will be on the wider area (and vice versa). In this respect, it is noted that the only document approved so far, the Northstowe Area Action Plan (AAP) DPD, includes no detailed phasing proposals and does not consider the implications of phasing on any aspect of the proposed development. One of the major effects of the development on the surrounding area will be the design, scale and location of infrastructure. The location, size and range of facilities will also have major effects. These cannot be determined with confidence until the proposals for the complete development are determined. It is therefore impossible at this stage to assess the environmental effects of any one part of the wider proposals and for the authority to give any meaningful opinion on the submitted scoping report.	The potential for cumulative effects with future phases of Northstowe is examined in chapter 14 of the ES.

Comment	Response
The EIA scoping report is premature. The proposed phase 1 site has not been subject to a public consultation and as such the overall Northstowe boundary and the phase 1 site boundary are yet to be finalised. The complete Northstowe AAP area should be included in the scoping report site map, with the phase 1 area clearly marked. The scoping report / EIA cannot be finalised until full and proper public consultation processes have been followed and the boundaries firmly established.	It is common for site boundaries to change between the scoping stage and the final ES. The rationale behind including a larger boundary in the scoping report was to enable comprehensive identification of potential effects. The phase 1 application and wider Northstowe boundaries are shown on figure 1.1 of the ES.
Developing the phase 1 site in isolation is not in the long term interests of Northstowe, Longstanton or Longstanton's heritage. The proposed phase 1 site could put at risk heritage assets and infrastructure provision across the wider AAP site, including the RAF Oakington heritage core and the Longstanton conservation area. The scoping report cannot allow assessment of the effects of the site until the applications for the whole of the Northstowe site are determined.	The potential for adverse effects on heritage assets on the wider Northstowe site is examined in the cultural heritage assessment (ES chapter 5), and mitigation measures to prevent this are set out in the assessment.
Concerned that the cultural heritage baseline of this scoping report is based upon information contained in the original Northstowe Planning Document 27: Archaeology and Built Heritage Strategy (2007). This planning document refers to out of date planning policies, admits that archaeological understanding is incomplete and makes no allowance for Planning Policy Statement 5 (PPS5), which remains the adopted national policy.	The scoping report provided a brief summary of the 'currently known baseline' at the time of the report's preparation. The subsequent cultural heritage assessment takes account of updated planning policy and updates the 2007 baseline.
The scoping report and the subsequent EIA cannot be accurately determined when assessment of the archaeology is, by the developer's admission, incomplete and the significance of 'unknown' sites remains undetermined. The scoping report clearly states that trenching was not undertaken on the golf course because of access restrictions. When Hattons Farm was converted to the golf course in the 1980s the archaeology was deemed so significant that trees had to be planted on mounds. What has changed since then? Northstowe Planning Document 27 (2007) makes clear that no trial excavations were carried out on the land west of the B1050 and now part of this area is being included in the phase 1 site. In addition, trial trenching was severely restricted on the airfield site due to ordnance issues.	Where it has not been possible to undertake field evaluations, the significance of the archaeological resource has been postulated based on the expert opinion of Cambridge Archaeology Unit, who have evaluated the surrounding area and found similar characteristics and configurations that have been analysed and dated. This approach was agreed with the County Archaeologist.

Comment	Response
Paragraph D9.1 of the Northstowe Planning Document 27 states that "other buried archaeological sites may also await detection". Table in paragraph 3.3.10 of this document indicates the presence of a Roman shrine, Roman villa and many other archaeological features recorded as of high significance in the table, which also states that "the majority of sites at Northstowe have a high potential for other hitherto unknown archaeological remains to be present". The current baseline for archaeology is out of date and incomplete. The scoping report must contain provision for further pre-application archaeological investigations to be carried out within the phase 1 site, as required.	See above response.
The scoping report states that "there are no scheduled monuments within 2 km of the site". It does not indicate that English Heritage is currently determining an application submitted by County Council Archaeologists to schedule part of the Longstanton conservation area. The report must be revised to allow for the fact that this site may be designated as a scheduled monument at any time during the planning process.	English Heritage has recently rejected the application for scheduling of this area, and this has been considered accordingly in the ES chapter.
There is no mention of the immense impact that the phase 1 proposals will have on the entire rural environment of Longstanton. The phase 1 site will have an impact on the north and south of Longstanton. This transformation from rural village to urban suburb will have a profound impact on Longstanton's heritage in its widest sense. The scoping report must allow assessment of the wider impact of this development proposal on Longstanton village, its residents and its non-archaeological heritage. Case law has clearly established the necessity to consider impacts beyond the site itself if the process is not to be subsequently challenged.	The impacts on the historic landscape and on the setting of the conservation areas in Longstanton are examined in chapter 5 of the ES. The impacts on landscape character and views surrounding the site are examined in the landscape and visual assessment in chapter 4, which cross-references with the cultural heritages assessment where appropriate.
The scoping report mentions the impact on the archaeology and historic land use of RAF Oakington, but there is no mention of the possible impact of the phase 1 development on the RAF Oakington buildings and structures of the heritage core, particularly if the immigration centre is used as a secure site for contractors. There is no mention of the impact of phase 1 on the Oakington pillboxes. There is no mention of the impact on Northstowe's identity if the phase 1 site does not include the RAF Oakington heritage core of buildings and structures, which developers and planners have committed to retain. The scoping report must	At this stage it is not envisaged that the immigration centre will be used by contractors. The northern potential area of excavation shown in the scoping report is no longer included within the application, so the airfield does not fall within the phase 1 site. The place of the heritage core within Northstowe was given detailed

Comment	Response
allow assessment of the consequences of excluding heritage assets from phase 1 and the EIA must provide mitigation as required.	consideration in the preparation of the wider Northstowe master plan, as discussed in the development framework consultation in October 2011.
The phase 1 site contains a number of footpaths and bridleways that form part of Longstanton village's historic heritage. The key issues do not include a proper assessment on the impacts of phase 1 on Longstanton's historic rights of way. The scoping report must fully assess the impact of phase 1 on the rights of way.	The potential for effects on existing public rights of way is examined in the community, social and economic and traffic and transport chapters (chapters 12 and 7).
The assessment methodology section states that "an assessment of archaeological assets, designated sites and listed buildings will be undertaken in accordance with Planning Policy Statement 5: Planning for the Historic Environment". The scope of the assessment methodology is too narrow and does not reflect adequately the loss to the village of its rural, social and military heritage. PPS5 is not limited to archaeological assets, designated sites and listed buildings, but the scoping report has restricted itself to these heritage classes. The assessment methodology should include an assessment for a museum to ensure that there is adequate mitigation for the loss of the rural history and military heritage. Since Northstowe was first proposed, LDHS has created a photographic, film and verbal memories record of Longstanton and the Northstowe AAP site. An assessment of the LDHS archives, and the contribution these can make to Northstowe, should be included in the methodology.	The cultural heritage assessment in chapter 5 of the ES has been undertaken in accordance with the guidance in PPS5. It is understood that Gallagher and the HCA have committed to the provision of a museum in a future phase of Northstowe.
The assessment methodology should also include an assessment of the RAF Oakington heritage core of buildings and structures, and their potential contribution to phase 1 of Northstowe. The scoping report should allow for an assessment of viable / commercial uses for the retained buildings. The developers and SCDC planners made a commitment to retain a RAF Oakington heritage core on 1 March 2011. It is simply not acceptable for this site to be excluded from phase 1 of the Northstowe development. PPS5 is not restricted to listed buildings and the heritage core has a fundamental role to play in meeting the requirements of the Northstowe AAP and PPS5. The heritage core will provide phase 1 with landscape features, and identity and sense of place – these are fundamental requirements of the AAP.	The northern potential area of excavation shown in the scoping report is no longer included within the application, so the airfield does not fall within the phase 1 site. The place of the heritage core within Northstowe, including the potential for use of retained buildings, was given detailed consideration in the preparation of the wider Northstowe master plan, as discussed in the development framework consultation in October

Comment	Response
Provision to protect the heritage core in the long term must form part of the phase 1 application.	2011.
PPS5 clearly states that planning has a central role to play in conserving our heritage assets and utilising the historic environment in creating sustainable places. Archives, memories and archaeological finds are all ways to ensure that cultural heritage is mitigated and Northstowe is provided with a unique identity and sense of place – both requirements of the AAP and PPS5. The scoping report fails to include any assessment and mitigation for this wider, non-archaeological heritage.	The cultural heritage assessment in chapter 5 of the ES has been undertaken in accordance with the guidance in PPS5. It is understood that Gallagher and the HCA have committed to the provision of a museum in a future phase of Northstowe.
The assessment methodology of the scoping report is inadequate, as it fails to consider the impact of the proposed phase 1 development on archaeology and heritage assets across the entire Northstowe AAP. Considerable damage could be caused to cultural and archaeological heritage located outside the official phase 1 site unless the EIA places conditions on the developers to ensure that this heritage is formally protected until the subsequent phases of Northstowe start. Legally binding commitments to future heritage protection and provision must be included in the EIA. The scoping report must enable this to happen.	The potential for adverse effects on heritage assets on the wider Northstowe site is examined in the cultural heritage assessment (ES chapter 5), and mitigation measures to prevent this are set out in the assessment.
The scoping report fails to include landscape features within its definition of cultural heritage. The report needs to assess the impact of the development proposals on footpaths, bridleways and landscape features. The village footpaths and tracks are part of its cultural heritage and the scoping report must ensure that the impact of the phase 1 proposals is adequately assessed and these historic rights of way are protected.	The cultural heritage assessment in chapter 5 includes consideration of the potential for effects on the historic landscape. The potential for effects on public rights of way is examined in chapters 7 and 12 of the ES.
The scoping report fails to assess the impact of the loss of a public amenity (the golf course). The report needs to include provision for proper assessment and mitigation of this loss.	This issue was addressed in the community, economic and social section of the scoping report, and is examined in chapter 12 of the ES.
If the Longstanton conservation area is to be included within the Northstowe boundary, the impact on the conservation area must be determined as part of the phase 1 planning process, and must be included within the scoping report.	The potential for effects on the Longstanton conservation areas is examined in the cultural heritage assessment.
Development of a detailed archaeological mitigation strategy is welcome, but the scoping report and EIA must ensure that the mitigation strategy covers the whole of the AAP site and	The detailed archaeological mitigation strategy provided in technical appendix B and

Comment	Response
not just phase 1. The EIA must consider the impacts on the whole site, rather than in isolation in relation to this phase only. It is important that, while phase 1 is being developed, the developers are obliged to ensure that heritage and archaeology on the remainder of the AAP site is not deliberately or inadvertently damaged by contractors' work or machines.	summarised in chapter 5 of the ES primarily focuses on the phase 1 site, but also includes measures to prevent damage to archaeology and heritage on the wider site during construction of phase 1.
It is of serious concern that the archaeological mitigation strategy is the only form of cultural heritage mitigation being considered within the scoping report. Phase 1 extends onto the former RAF Oakington site (earmarked as it is for excavation for fill and infrastructure work), yet there is no mention of any other form of heritage mitigation for Longstanton parish or the RAF Oakington site. The scoping report should include mitigation for the loss of the rural village and military heritage by the provision of a museum and by providing long term protection of the RAF Oakington heritage core and Longstanton conservation area. Provision of a museum as part of phase 1 of the Northstowe development will help mitigate the impact of development on the archaeology and ensure that artefacts found on the site can be displayed locally. The museum will also facilitate community involvement with the archaeology and heritage of the Northstowe site.	This was a preliminary identification of potentially appropriate mitigation measures to inform the scoping process. Full details of the proposed cultural heritage mitigation measures are provided in chapter 5 of the ES and technical appendix B. It should be noted that the northern potential area of excavation for fill and infrastructure works identified in the scoping report has now been removed from the phase 1 site, so phase 1 no longer extends onto the airfield.
Although it mentions PPS5, the scoping report is too restrictive in its interpretation. PPS5 encourages developers to listen to local people and groups. Significance is not just determined by professionals – under PPS5 the views of the local population are crucial to determining significance. LDHS and others feel their heritage is of significance. The scoping report appears to write off all the non-archaeological heritage as non-significant and expendable.	The cultural heritage assessment in chapter 5 of the ES has been undertaken in accordance with the guidance in PPS5.
There is a non-Oakington pillbox next to the Rampton crossing of the guided busway. This pillbox is in good condition and is in the phase 1 area. Hope that this pillbox will be preserved and protected during building works. It is on the edge of the track and should not get in the way of any development plans. The scoping report should include the preservation of pillboxes in the likely mitigation measures.	As the northern potential area of excavation identified in the scoping report is no longer included in the phase 1 site, the pillbox now falls outside the site.
The phase 1 proposal has significant implications for a number of footpaths that cross the	The potential for effects on existing public rights

Comment	Response
phase 1 site, including some on the golf course as well as the Longstanton – Rampton bridle path. This route from Longstanton to Rampton is thought to be possibly pre-historic in origin. The scoping report must allow adequate assessment and mitigation for all public rights of way.	of way is examined in the community, social and economic and traffic and transport chapters (chapters 12 and 7).
The scoping report and subsequent EIA must ensure that cultural assets of the wider Northstowe AAP site are given adequate protection as part of the phase 1 planning process. It is not acceptable for non-phase 1 heritage assets like the RAF Oakington heritage core, the officers' mess, the Oakington pillboxes and the Longstanton conservation area to deteriorate and fall into disrepair while the developers start on the part of the site that suits their own purposes. The scoping report should allow for provision of a museum and country park as a way of mitigating the impact of the Northstowe development on the wider environment.	The place of the heritage core within Northstowe, including the potential for use of retained buildings, was given detailed consideration in the preparation of the wider Northstowe master plan, as discussed in the development framework consultation in October 2011. It is understood that Gallagher and the HCA have committed to the provision of a museum in a future phase of Northstowe.
The scoping report must ensure that all Northstowe AAP heritage assets not included in the phase 1 site are assessed properly and the subsequent proposals give adequate, long term and legally binding protection to those assets.	The cultural heritage assessment includes mitigation measures to prevent damage to off site heritage assets during construction. The long term protection of the heritage core has been considered in the preparation of the wider Northstowe framework master plan.

Sustrans

Comment	Response
The draft scoping report describes the development proposal in quantitative terms, but appears uninformed about the parameters of the design. In the absence of such information, this appears to imply that a 'standard' housing development is planned. In recent years, though not in and close to Cambridge, most new developments have assumed the primacy of car transport over other, healthier, more environmentally and socially sustainable modes. It would be regrettable if Northstowe were to become a 'standard' new town development in this sense.	Full details of the proposed development, including the access and movement parameter plan showing the new pedestrian, cycle and public transport routes to be created, are provided in chapter 2 of the ES.
Recommend that the scoping report should be amplified to make clear that the constraint of the withdrawal of the A14 road widening scheme and the opportunity of the opening of the guided busway both necessitate and enable Northstowe to be a non-car-dependent community. It should explain the influence that the adoption of design principles, outlined for example in PPG13, Manual for Streets (DfT, 2007) and Manual for Streets 2 (IHT and DfT, 2011), can have on the long term sustainability of a major development, and the need fully to implement these principles in Northstowe. This would be wholly consistent with the county and district's policies on carbon reduction and the promotion of sustainable transport modes, and would have a significant and beneficial effect on health, community life and environmental sustainability for residents and others.	Details of the design process are set out in the Design and Access Statement submitted in support of the application, while details of the sustainability measures incorporated within the proposed development are set out in the Sustainability Statement.
Design details can be crucial in determining the way a development will be used. This can extend even to the detailed design of dwellings, as MfS 8.2.1 states: "providing enough convenient and secure cycle parking at people's homes and other locations for both residents and visitors is critical to increasing the use of cycles. In residential developments, designers should aim to make access to cycle storage at least as convenient as access to car parking".	The design of the proposed development is discussed in the Design and Access Statement submitted in support of the application. Cycle and car parking provision are discussed in the transport assessment in technical appendix D.
To review the 'likely significant effect' of various 'components' in the scoping checklist (appendix B): • Air and climate: for both local air quality and carbon dioxide emissions, a development designed for the primacy of sustainable transport would reduce emissions relative to those	The sustainable transport measures incorporated into the proposed development are discussed in the transport assessment and travel plans in technical appendix D. The influence of these

Comment	Response
expected of a 'standard' new town development • Community, economic and social effects: for both public health and safety and social inclusion / exclusion, a development designed to make active travel the easy and obvious choice would have significantly beneficial effects compared with either a standard development or with the surroundings from which its future residents are likely to have moved. 'The nature of the proposed development' should be required to be such as to confer benefits to health and to social inclusion, changing the checklist entry to a favourable 'Y' • Noise and vibration: even a development rigorously designed to generate sustainable transport will create traffic noise, but the more that walking and cycling become the usual modes of choice the less noise will be created • Traffic and transport: traffic flows would be less affected the more the design of the development made active travel the natural choice • Infrastructure: the more self-contained Northstowe could be (e.g. in the proximity of employment and residential areas), the less external motor travel would be generated and the higher the proportion of journeys would be on foot or public transport. This would reduce the need for exterior road works, and require an appropriate internal streetscape (see MfS etc.) • Road safety: the increased traffic would be less than otherwise anticipated, thus the effect on the accident rate would be less • Pedestrians and cyclists: an active population would make full use of streets and paths, within and outside the development, for daily journeys and for recreation. Northern Cambridge is within easy daily cycling distance using the busway cycleway • Public transport: the scoping report does not refer to the intention that some bus services using the guideway will be routed through the streets of Northstowe, making bus travel to St Ives, Huntingdon and Cambridge extremely convenient	measures on traffic levels, and related effects, are taken into account in the relevant assessments reported in the ES.
In summary, while Sustrans agrees that an effective ES should not be over-elaborate, it is essential that the strong link between the design parameters of Northstowe and the way its	The connection between development design and residents' travel choices is discussed in the

Comment	Response
residents will choose to travel must be recognised, and appropriate action taken. This calls for some changes to the scoping report, which will in turn influence the ES and the way in which Northstowe is delivered.	transport assessment and travel plans in technical appendix D.

Stagecoach

Comment	Response
Surprised that the assessment was not carried out prior to the construction of the Cambridgeshire guided busway. What is the point of the busway without Northstowe being developed?	Noted.

Anglian Water

Comment	Response
Anglian Water is currently liaising with the developers of Northstowe and undertaking assessments to provide a drainage strategy for the site that will accommodate the proposals within the timescales of a planning application.	Noted.

Old West Internal Drainage Board

Comment	Response
Part of the site falls within the Old West Internal Drainage Board's district, with one of its main drains situated within the site boundary.	Noted.
The Board's surface water receiving system has no residual capacity to accept increased flows from newly created impermeable areas in connection with development proposals. Therefore, adequate surface water accommodation works need to be put in place to protect the district. These works will need to be maintained in perpetuity by a competent body.	Full details of the proposed drainage strategy are provided in the FRA in technical appendix H, and summarised in chapter 2 of the ES.

Swavesey Internal Drainage Board

Comment	Response
The Swavesey Drain system is at capacity and is 'tide locked' at Webbs Hole Sluice at times of high flows within the River Great Ouse. The effect of proposals to discharge surface water or treated effluent into this system must be properly assessed in this context, and it should not be assumed that capacity would be available within the Swavesey Drain to accept these flows. The study should ensure that the proper level of detail is investigated.	The potential for effects on the hydrology of the Swavesey Drain system is examined in the FRA in technical appendix H and summarised in chapter 11 of the ES.
Paragraph 16.3 of the scoping report needs to allow for the tide locking and ensure that adequate provision is made for times when the Webbs Hole Sluice is closed.	The effect of tide locking of the Webbs Hole Sluice has been taken into account in the FRA.
While the reference in paragraph 16.7 to the concerns raised by the Environment Agency is noted, no reference is made to the concerns raised by this Board on the flood risk to its area or to the wider parts of Swavesey village potentially created by surface water and treated effluent discharge. While the Board assumes that the reference to 'internal drainage board' in paragraph 16.11 includes consultation with this Board, such consultation should also extent to the impacts of the discharge of treated effluent through Uttons Drove STW.	Noted. Further consultation has been undertaken with the Swavesey IDB.

Appendix 1 – Scoping Report

Northstowe Phase 1
EIA Scoping Report

Gallagher
July 2011

Terence O'Rourke Ltd
creating successful environments

Northstowe Phase 1
EIA Scoping Report

Gallagher

July 2011

Issue / revision	FINAL	Prepared by	Lauren Tinker
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		Date	15 July 2011
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Terence O'Rourke Ltd
creating successful environments

Town planning · Urban design · Environmental consultancy
Landscape architecture · Architecture · Graphic design

Everdene House Deansleigh Road Bournemouth BH7 7DU
T: 01202 421142 F: 01202 430055
E: maildesk@torltd.co.uk W: www.torltd.co.uk

Contents

Figures

Appendices

1 Introduction

Background and purpose of the scoping report

1.1 In 2007, Gallagher and English Partnerships (now the Homes and Communities Agency, HCA) submitted an outline planning application for the new town of Northstowe, located approximately 10 km to the north west of Cambridge. Three detailed infrastructure applications were also submitted. An environmental impact assessment (EIA) of the proposals was undertaken and an environmental statement (ES) was submitted with the applications.

1.2 The consultation and determination process for the 2007 applications is ongoing. The 2007 application was consistent with the Highways Agency A14 Ellington to Fen Ditton scheme, which has now been withdrawn following the recent government spending review and the A14 will be the subject of a new Department for Transport study. With proposals for the A14 in abeyance, Gallagher intends to submit a new outline planning application to South Cambridgeshire District Council (SCDC) for an initial phase of Northstowe (figure 1), to comprise approximately 1,500 dwellings, school, local retail and community facilities, employment land, formal and informal open space and associated infrastructure.

1.3 The proposal for the initial phase of Northstowe is considered to be an EIA development as defined by the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended), hereafter the EIA Regulations, and as such the new planning application will need to be accompanied by an ES prepared in accordance with the EIA Regulations. Gallagher therefore submits this report as a request to SCDC for an EIA scoping opinion.

1.4 This report presents information to assist SCDC in the process of scoping the EIA and outlines Gallagher's view as to the significant effects that the EIA would need to examine and the preliminary scope of the information to be provided in the ES.

Report structure

1.5 This report is broadly structured as follows:

- A brief description of the nature and purpose of the proposed development
- The preliminary scoping process
- The results of the scoping exercise
- Conclusion with the information to be provided in the ES and its proposed structure

2 The site

2.1 The site is divided into three blocks: the primary development site that will accommodate the proposed dwellings, employment land, facilities and open space and two potential areas of excavation for fill and infrastructure work (figure 1). The 96 ha primary development site lies at the northern end of the wider Northstowe site and comprises the 18-hole Cambridge Golf Course and driving range in the south and centre and agricultural fields in the north and south east. There are several engineered ponds within the golf course, which largely consists of amenity grassland, and a number of fen drains that drain surface water from the course. There is an area of marshy grassland in the south west of the site. There are trees across the site associated with the landscaping of the golf course and several hedgerows that run along the fen drains. There are three public rights of way in the west of the site.

2.2 The 90 ha southern potential area of excavation and infrastructure work lies adjacent to the B1050, to the south west of Longstanton and the north of New Close Farm (figure 1). It is in arable agricultural use. Longstanton Brook runs through the west of the area. The 25 ha northern potential area of excavation and infrastructure work lies within the former Oakington airfield, adjacent to the route of the Cambridgeshire Guided Busway (CGB, due to open in August 2011). It includes part of the former runway and is used for grazing cattle. A small watercourse runs through the north of the area.

The surrounding area

2.3 The primary development site is bordered to the north and east by the Longstanton Park and Ride and the route of the CGB, beyond which are fields, and to the south by the remainder of the wider Northstowe site, including an area of fields to the north of Rampton Road, and the former Oakington Immigration Centre, barracks and airfield. The village of Longstanton forms the western site boundary.

2.4 The southern potential area of excavation and infrastructure work is bordered to the west by the B1050 and to the east, south and north by agricultural fields, while the northern area is bordered to the east by the route of the CGB and to the north, south and west by the wider Oakington airfield.

2.5 Agricultural land to the north of the primary development site (approximately 58 ha) is identified in the Northstowe Area Action Plan as strategic reserve land to form part of Northstowe. The settlement of Willingham lies to the north east, Rampton lies to the east and Oakington to the south.

2.6 The A14 runs approximately 3 km to the south west of the site and the B1050 Hatton's Road / Longstanton western bypass runs north from the A14 to a new roundabout adjacent to the site.

Primary development area

Drainage channel

Access track

Potential area of excavation for fill and infrastructure work

LONGSTANTON CP

Potential area of excavation for fill and infrastructure work

OAKINGTON AND WESTWICK CP

Legend

Site boundary

Figure 1: site boundary

Client / Project:
Northstowe Phase 1

July 2011

Drawn by: JC

Scale: 1:15,000 @ A3

Checked by: LT

0 350 m

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3 The proposed development

3.1 The proposals are likely to include the following:

- Approximately 1,500 dwellings at an average density of 40 dwellings per hectare, approximately 35% of which will be affordable housing
- At least one small mixed use local centre, including shops, dwellings and community facilities
- School
- Approximately 3.5 ha of employment land
- A household recycling centre and foul water pumping station
- Approximately 35 ha of formal and informal public open space, including a sports hub

3.2 The proposed infrastructure works include the following:

- Improvements to the existing B1050
- Internal road network
- Reservation of land for the first length of an internal busway link to the Cambridgeshire Guided Busway
- Balancing ponds
- Earthworks and cut and fill to enable land raising and re-profiling of the site for drainage purposes
- Energy infrastructure

3.3 The potential for cumulative effects with the wider Northstowe scheme will need to be considered in the EIA (see section 17 for further details).

4 Scoping an environmental impact assessment

The purpose of scoping

4.1 There is no standard format for an ES, but it must contain the information specified in Part II of Schedule 4 of the EIA Regulations, and such of the relevant information in Part I as is reasonably required to assess the effects of the proposed development and that the developer can, having regard to current knowledge and methods of assessment, reasonably be required to compile. Parts I and II of Schedule 4 are set out in appendix A of this report.

4.2 The purpose of an ES is to report the findings of the EIA of the significant effects of an EIA development on its receiving environment. This is encapsulated in the advice given in paragraph 82 of DETR Circular 02/99:

> "Whilst every ES should provide a full factual description of the development, the emphasis of Schedule 4 is on the 'main' or 'significant' environmental effects to which a development is likely to give rise. In many cases, only a few of the effects will be significant and will need to be discussed in the ES in any great depth. Other impacts may be of little or no significance for the particular development in

> question and will need only very brief treatment to indicate that their possible relevance has been considered. While each ES must comply with the requirements of the Regulations, it is important that they should be prepared on a realistic basis and without unnecessary elaboration".

4.3 This approach is reinforced by case law from UK and European courts. The Milne judgement (R v Rochdale MBC ex parte Milne) states that "the environmental statement does not have to describe every environmental effect, however minor, but only the main effects or likely significant effects". There is no formal definition of main or significant effects in the EIA Regulations, although guidance provided by the European Commission[1] advises that:

> "Those responsible for scoping often find difficulties in defining what is 'significant'. A useful simple check is to ask whether the effect is one that ought to be considered and to have an influence on the development consent decision".

4.4 Significant effects are considered to be a subset of an EIA development's main effects. A key element of the scoping process is to examine the main effects to determine those that are likely to be significant and thus should be included within the scope of the EIA.

The focus of scoping

4.5 A planning authority's scoping opinion represents its opinion as to the information that needs to be presented in the ES that will accompany the planning application for an EIA development. This information can be grouped under the following areas:

1. The identification of environmental features likely to be affected by the development and a consideration of which of these effects will be significant effects.
2. A description of the EIA methodologies that will be used to determine the degree of significance to be attached to the significant effects.
3. A description of the possible mitigation measures or enhancement that might be relevant.

4.6 If the required information is defined too narrowly, some critical area of uncertainty or a significance adverse effect may emerge late in the process, with consequences for the design of the proposals and timetables for development. If the required information is too loosely defined, much time, expense and effort may be wasted on pursuing unnecessary detail. Item 1 is therefore considered to be the primary focus of this scoping report.

4.7 When considering item 1, the scale and nature of the proposed development and the site specific and local environmental baseline conditions should be taken into account. The aim is to 'scope in' only those issues considered to be

[1] Guidance on EIA: Scoping, June 2001, Office for official publications of the European Communities.

likely significant effects. Where a particular environmental feature or component has not been included within the proposed EIA scope, this is not to suggest that there will be no associated effects, rather that these are not considered to be among the significant effects. In line with the guidance in Circular 02/99, these effects will be given "brief treatment [in the ES] to indicate that their possible relevance has been considered", but that no detailed assessment work was carried out on them.

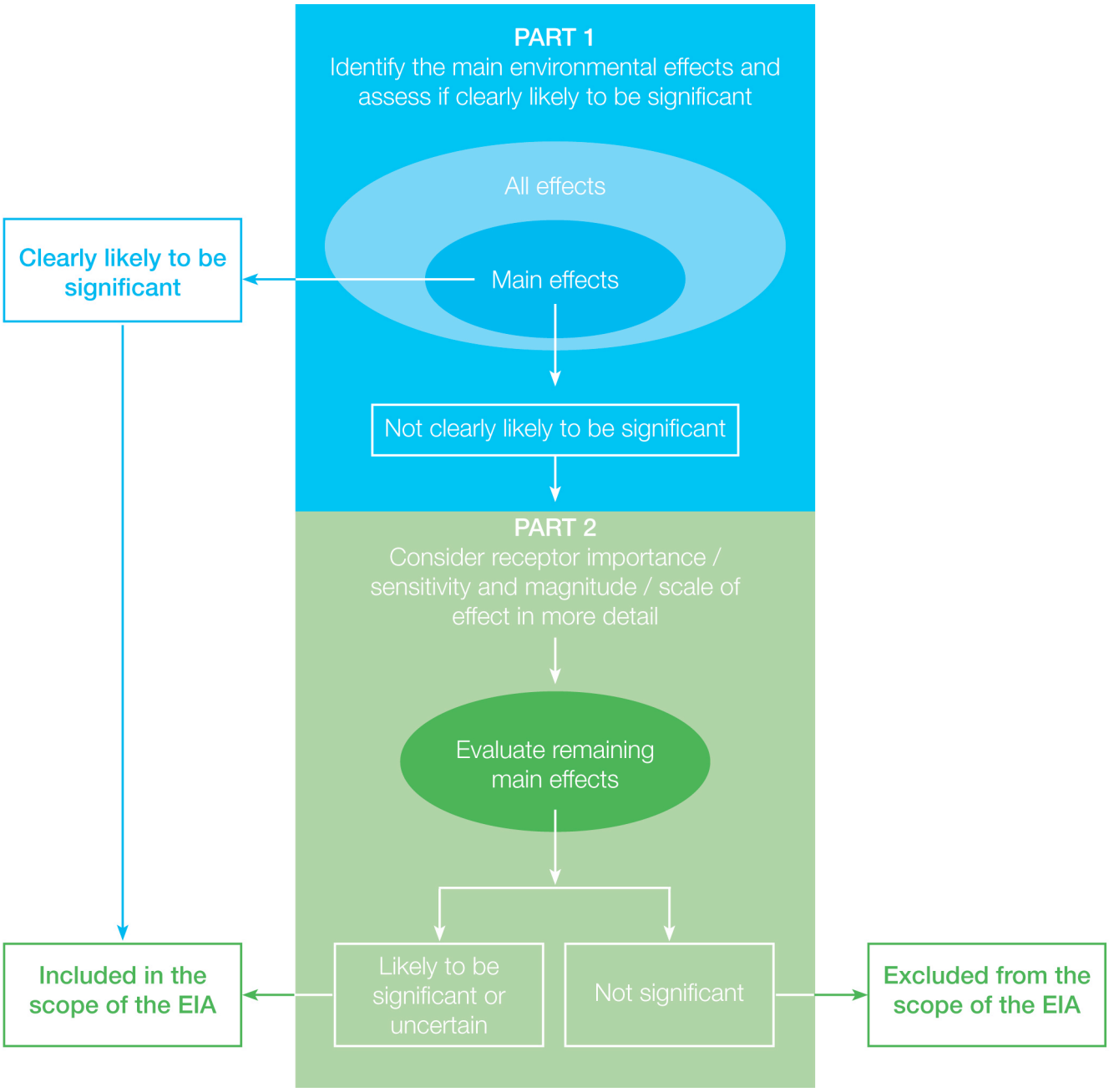
4.8 A comprehensive and focused scoping process, culminating in a constructive scoping opinion that identifies the likely significant effects and any EIA methodologies that SCDC wishes to see employed, will enable the production of an ES that provides a concise and objective analysis that deals with all the significant areas of impact and highlights the key issues relevant to the decision making process.

5 Identification of main and significant effects

Scoping methodology

5.1 The development proposals were examined to identify the likely significant environmental effects, which were then further refined using the methodology described below and illustrated in figure 2, to arrive at a preliminary scope for consideration by SCDC. This scoping examination was in two parts and was based on the currently available baseline data, the findings of the 2007 EIA for the wider Northstowe scheme and the judgement of experienced EIA practitioners.

Figure 2: The EIA scoping process



Part 1

5.2 Part 1 identified the likely main effects, and of those the ones that are clearly likely to be significant, in accordance with the features of the environment referred to in the EIA Regulations and in the *Preparation of environmental statements for planning projects that require environmental assessment – a good practice guide* (Department of the Environment, 1995). The checklist set out in appendix B was used to inform this process. In particular, Part 1 identified:

- Those environmental features, or components of them, that will be subjected to main effects arising from the EIA development that are clearly likely to be significant
- Those environmental features, or components of them, that are either of no relevance to the EIA development, or will clearly not be subjected to the development's main effects

Part 2

5.3 Part 2 then examined the remaining 'main effects' in more detail to assess, where possible, if any are likely to be significant. To do this, the relative importance of the potential receptors was compared to the envisaged magnitude of the changes to which they would be subjected, using the matrix shown in appendix C.

5.4 Where a main effect falls within the yellow shaded area of the matrix in appendix C, it is considered likely to be significant and should be included within the scope of the EIA. Main effects falling within the green areas on the matrix are considered to have no likelihood of being significant and should not be included within the scope of the EIA. Where a main effect falls within the blue area on the matrix, the uncertainty is such that it cannot be confirmed at the scoping stage whether it is likely to be a significant effect or not. Such effects warrant further consideration through the EIA process and so these effects will be included in the scope of the EIA.

5.5 The effects on relevant environmental features, grouped under broad generic headings, are set out in the following chapters of this report.

6 Air quality

Introduction

6.1 The proposed development has the potential to give rise to changes in the air quality at sensitive receptors in the vicinity of the site through fugitive dust emissions associated with earthworks and construction work, and the increase in traffic on the local roads. The key potential climatic issue relating to the proposed development is the generation of carbon dioxide associated with the additional heating / power requirements of the new dwellings.

6.2 The key pollutants affecting human health are nitrogen dioxide (NO_2) and particulate matter of less than 10 microns (PM_{10}). The concentrations of these pollutants at sensitive receptors in the vicinity of the site and along the local road network should be examined and compared with air quality objectives.

Currently known baseline

6.3 An air quality management area (AQMA) for NO_2 and PM_{10} has been designated along the A14 between Bar Hill and Milton, as air quality objectives are currently being exceeded for both pollutants.

Key issues

6.4 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Emissions of NO_2 and PM_{10} from construction and post-construction traffic
- Potential for emissions of NO_2 and PM_{10} from biomass boilers if these are required as part of the energy strategy for the site
- Generation of dust and particulate matter during construction

6.5 The analysis is summarised in the table at the end of this section.

6.6 The energy strategy for the site has not yet been determined, so the potential for emissions of NO_2 and PM_{10} from biomass boilers has been included within the scope of the EIA on a precautionary basis.

6.7 The potential for odour effects from the proposed foul water pumping station and household recycling centre was examined, but this is not considered likely to be significant as these uses are proposed in the north of the site, away from sensitive receptors both within and outside the proposed development. In addition, both facilities will be enclosed and will feature appropriate abatement technology, and standard procedures relating to the handling and storage of waste will be put in place at the household recycling centre to minimise odour.

6.8 The potential effects on carbon dioxide emissions as a result of increased heating / power demand will be examined in the separate energy statement, rather than in the EIA.

Assessment methodology

6.9 The air quality baseline will be examined using historic empirical data and current monitoring data from SCDC's diffusion tube and continuous analyser network. As the concentrations of NO_2 recorded in the 2007 monitoring undertaken by WSP in the vicinity of the site were all well below the air quality objective concentrations, no additional monitoring is proposed. The council's environmental health officer will be contacted regarding the provision of background data and additional reports and to agree the proposed assessment methodologies.

6.10 The construction dust assessment will examine the impact of dust generation on sensitive receptors by considering likely dust-generating activities and prevailing wind directions. The geographical extent of the assessment will comprise a radius of 200 m around the site, as dust generally settles out within this distance.

6.11 The traffic-related air quality assessment will appraise the impact of construction and post-construction traffic movements. Detailed dispersion modelling using ADMS-Roads will be undertaken. The focus of the modelling will be NO_2 and PM_{10} and the potential for effects on specific sensitive receptors and the AQMA. The likely geographical extent of the assessment will comprise the local road network in the vicinity of the site, including the nearest section of the A14.

6.12 If biomass boilers are to be included as part of the energy strategy for the development, a point-source dispersion modelling exercise (using a programme such as ADMS4) will be undertaken to predict emissions of NO_2 and PM_{10} and to determine the potential for effects on sensitive receptors in the vicinity of the site.

6.13 The assessment is likely to be undertaken using the best practice methodology published by Environmental Protection UK in *Development Control: Planning for Air Quality (2010 Update)* (April 2010).

Likely mitigation measures

6.14 Based on this initial consideration of the air quality and climate features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Implementation of a construction environmental management plan, to include a range of best practice measures to minimise dust generation
- Travel planning measures to minimise private car travel

Air quality effects summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Road vehicle emissions during construction	✗	Neighbouring population and AQMA High	Small Short term	✓
Road vehicle emissions post-construction	✗	Neighbouring population and AQMA High	Small to medium Long term	✓
Dust generation during construction	✓			
Emissions from biomass boilers post-construction	✗	Neighbouring population High	Uncertain Long term	✓
Odour from foul water pumping station and household recycling centre	✗	Neighbouring population High	Negligible Long term	✗
Carbon dioxide emissions post-construction	✗	Global climate High	Negligible Long term	✗

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

7 Community, economic and social effects

Introduction

7.1 The proposed mixed use development is likely to cause a range of community, economic and social effects. These include increased population and potential demographic effects, increased provision of market and affordable housing, increased demand for and provision of local services and community facilities and the potential generation of employment.

Currently known baseline

7.2 The site lies within Longstanton ward, which had a population of 1,700 at the time of the 2001 Census, while the population of South Cambridgeshire as a whole was 130,100. There is a continuing strong demand for housing in South Cambridgeshire and there is an ongoing shortage of affordable housing. Unemployment in Longstanton ward and South Cambridgeshire is below the national average. Community facilities in Longstanton include a primary school, GP surgery, dental surgery, sports and social centre, recreation ground with two football pitches, bowls green, two tennis courts and a cricket square, and a post office and village store.

Key issues

7.3 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Increase in population and potential effects on local demography
- Provision of new market and affordable housing
- Generation of employment during and post-construction
- Increased pressure on local services and facilities, provision of new facilities and loss of existing golf course
- Potential for effects on demand for local businesses as a result of increased population and provision of local shops

7.4 The analysis is summarised in the table at the end of this section.

7.5 The potential for a reduction in local amenity during construction works was considered, but the effects that could cause this reduction are examined in other topics, including air quality, noise and traffic, so it was not considered appropriate to duplicate coverage in this section.

Assessment methodology

7.6 The existing baseline conditions will be established in detail through a desk-study. The significance of effects will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix. Potential effects will be considered at the ward and district level as appropriate.

Likely mitigation measures

7.7 Based on this initial consideration of the community, economic and social features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measure may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Financial contributions to minimise increased pressure on local services and facilities, secured by a section 106 legal agreement with the council

Community, economic and social effects summary

Part 1		**Part 2**		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Increased population	✓			
Changes to local demography	✗	Local population High	Small to medium Long term	✓
Increased housing provision	✓			
Generation of employment	✗	Local population High	Small to medium Short and long term	✓
Increased pressure on local services and provision of new facilities	✓			
Effects on demand for local businesses	✗	Local businesses High	Small Long term	✓

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

8 Cultural heritage

Introduction

8.1 New development can affect cultural heritage assets, including buried archaeology, the historic landscape and built heritage features. A development can directly impact on features of interest, such as through the loss of buried archaeology, and can also have indirect effects, such as altering the setting of listed structures and monuments. A development necessitating archaeological investigations can be beneficial to improve understanding of an area's history or provide a better understanding of the archaeological record.

Currently known baseline

8.2 A programme of archaeological works, including a desk-based study, geophysical survey and trial trenching was undertaken by Cambridge Archaeological Unit and Oxford Archaeotechnics from 2004 to 2006. These revealed several areas of important archaeological remains on the primary development site, including Iron Age enclosures, an Iron Age settlement and a Romano-British settlement. Trenching was not undertaken on the golf course because of access restrictions.

8.3 Areas of important archaeological remains were also found in the two potential areas of excavation for fill and infrastructure work, including two identified Iron Age settlement enclosures in the southern area and an extensive Romano-British settlement site in the northern area. Selective evaluation in the northern area of RAF Oakington has shown that archaeological features extend beyond the geophysical survey area and have, more significantly, survived runway-related disturbance / truncation. Proposed access tracks between this area and the primary development area will utilise an extant track on the eastern perimeter of the former airfield.

8.4 There are no scheduled monuments within 2 km of the site and no registered historic parks and gardens within 5 km.

8.5 The St Michael's and All Saints conservation areas lie to the south west of the site in Longstanton and contain several listed buildings, including the grade I listed Church of All Saints and the grade II* listed St Michael's Church. The closest listed structure to the site is the grade II listed village water pump on Longstanton High Street.

Key issues

8.6 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Impact on buried archaeological remains on site during construction

- Impact on the setting of nationally listed buildings in the vicinity of the site during and post-construction
- Impact on the setting of the Longstanton conservation area during and post-construction
- Impact upon the archaeology and historic land use of RAF Oakington
- Impact on the historic landscape in the potential areas of excavation for fill and infrastructure work

8.7 The analysis is summarised in the table at the end of this section.

8.8 It is not considered that there would be significant effects on the historic landscape of the primary development site because it has been largely erased by the creation of the golf course and driving range.

Assessment methodology

8.9 An assessment of archaeological assets, designated sites and listed buildings will be undertaken in accordance with Planning Policy Statement 5: Planning for the Historic Environment and *The Setting of Heritage Assets: English Heritage Guidance*. The previous desk-based study will be reviewed to ensure the baseline is comprehensive and the Historic Environment Record search is up to date, and the findings of the earlier site investigations will form the basis for the assessment. The scope of works will be discussed with the county archaeologist.

8.10 The assessment will be supported by an analysis of viewpoints to and from key locations, including selected listed buildings and Longstanton conservation area. The assessment will cross-reference with the landscape and visual assessment as appropriate.

8.11 The significance of effects will be determined by combining the importance of identified receptors with the predicted magnitude of change, using a matrix.

Likely mitigation measures

8.12 Based on this initial consideration of the cultural heritage assets that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Development of a detailed archaeological mitigation strategy, including sampling, an archaeological watching brief during construction and determination of appropriate methods of preservation (in situ or by recording) for the various areas of archaeological remains identified
- Implementation of a construction environmental management plan, to include a range of best practice measures to minimise noise and dust and control construction traffic movements to reduce setting effects
- Sensitive design of the proposals in the areas adjacent to Longstanton

Cultural heritage effects summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Impact on archaeological remains on site	✓			
Impact on setting of listed buildings in the vicinity during and post-construction	✓			
Impact on setting of Longstanton conservation area during and post-construction	✓			
Impact on archaeology and historic land use of RAF Oakington	✗	Archaeology and historic land use of RAF Oakington Medium	Medium Long term	✓
Impact on the historic landscape of the site	✗	Historic landscape of site Medium	Medium Long term	✓

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

9 Geology, hydrogeology and contamination

Introduction

9.1 The existing ground conditions of a site can be of concern due to the potential for mobilisation of contaminants during construction, or exposure of sensitive receptors such as construction workers, groundwater and future residents to such material. The potential for the proposed development to alter the ground conditions of the site post-construction is limited. The potential for effects on surface water and groundwater chemical quality will also be examined.

Currently known baseline

9.2 The primary development site is currently in use as a golf course, driving range and agricultural fields. There are potentially contaminative former land uses close to the site, including the former railway line to the east and a farm and the former Oakington Barracks and airfield to the south. A desk based assessment and intrusive investigations were undertaken by WSP between 2005 and 2007, which found elevated concentrations of arsenic, petroleum hydrocarbons and polycyclic aromatic hydrocarbons in isolated hotspots in the golf course car park and the agricultural field in the south east of the site.

9.3 The northern potential area of excavation for fill and infrastructure works lies within the former Oakington airfield. There is a range of possible contaminants associated with this area, including the potential for buried munitions and ordnance. The southern area is currently in agricultural use and is unlikely to be significantly contaminated.

Key issues

9.4 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Potential for health effects due to contact with contaminants during construction (including asbestos-containing materials in existing buildings)
- Mobilisation of contaminants into the water environment during and post-construction
- Potential for health effects due to contact with contaminants post-construction arising from the use of gardens, landscaped areas and public open space
- Potential for the presence of ground gas or landfill gas to pose a risk to future site users and new structures (explosive and asphyxiant)
- Potential presence of buried munitions and / or ordnance or munitions on the surface posing a risk to human health and new structures
- Effects on surface water and groundwater quality from pollution due to spills during construction and from contaminated run-off post-construction

9.5 The analysis is summarised in the table at the end of this section.

9.6 The potential for stability effects as a result of the proposed earthworks on site was examined, but it was considered that the earthworks would be engineered to ensure that this would not be a significant issue.

9.7 Effects on agricultural land quality and soil resources are examined in the land use section below.

Assessment methodology

9.8 The 2007 desk-based assessment will be reviewed and updated to determine the site's geology and existing and past land uses. An updated Landmark Envirocheck report will be obtained to inform this process. The results of the 2007 intrusive investigations will be analysed in relation to current guidance and best practice (e.g. current soil guideline values, PPS23 and CLR11) and reported quantitatively. The potential for activities associated with the construction or operation of the development to result in the migration of any historic contaminants will then be assessed.

9.9 The potential for contamination effects will be examined as part of the EIA using a source-pathway-receptor conceptual model. This will identify if there is the potential for any link between a source of contamination and a sensitive receptor(s), resulting in a significant adverse environmental effect. Statutory regulators will be consulted on all contamination matters.

Likely mitigation measures

9.10 Based on this initial consideration of the potential receptors that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Preparation and implementation of a construction environmental management plan, including health and safety procedures
- Development of a remediation strategy for areas of contaminated land and / or groundwater
- Preparation of an earthworks strategy

9.11 Mitigation measures relating to buried ordnance and munitions will be determined by a specialist subcontractor and stated as part of the earthworks strategy to be produced for the site.

Geology, hydrogeology and contamination effects summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Health effects due to contact with contaminants during construction	✗	Construction workers High	Small Short term	✓
Mobilisation of contaminants	✗	Water environment High	Small Short term and long term	✓
Effects on surface water and groundwater quality due to spills and contaminated road run-off	✓			
Health effects due to contact with contaminants post-construction	✗	New residents and visitors to the site High	Small Long term	✓
Risk to humans and new structures from buried munitions / ordnance	✓			
Stability issues associated with earthworks	✗	New buildings High	Negligible Long term	✗

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

10 Landscape and visual effects

Introduction

10.1 Effects on the landscape can arise from a development giving rise to direct changes to the physical elements of the receiving landscape, which may affect its features, character and quality; or from indirect effects on the character and quality of the surrounding landscape. Visual effects can result if the development changes the character and quality of people's views. Landscape and visual effects are linked but have different attributes, so are considered as two elements.

Currently known baseline

10.2 The site lies within the Bedfordshire and Cambridgeshire Claylands character area, the key characteristic of which is a gently undulating landscape of open arable fields, sparse woodland cover and river corridors emphasised by willow and stands of poplar.

10.3 The primary development site is low lying at approximately 5 m AOD and is governed by the remodelled terrain of the golf course and driving range. It is an immature, but establishing, golf course parkland landscape with a variety of tree species. The southern potential area of excavation for fill and infrastructure works is an agricultural landscape and the northern area forms part of the former Oakington airfield. Protected landscapes and townscapes in the vicinity of the site include the Longstanton conservation area to the south west.

10.4 The site is visible from the Guided Busway route to the east, surrounding villages including Longstanton to the west and Rampton to the east, and public rights of way in the vicinity.

Key issues

10.5 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Changes to the landform / topography of the site as a result of earthworks associated with the proposed drainage scheme
- Changes to local landscape character
- Changes to land cover on site
- Changes to landscape quality of the site
- Changes to sensitive views into the site, including from designated areas such as Longstanton conservation area, and including changes to night time views as a result of increased lighting

10.6 The analysis is summarised in the table at the end of this section.

Assessment methodology

10.7 The Countryside Agency's *Landscape Character Assessment Guidance for England and Scotland* (2002) and the *Guidelines for Landscape and Visual Impact Assessment* produced by the Landscape Institute and the Institute of Environmental Management and Assessment (2002) will be used to guide the assessment of the site and surrounding area.

10.8 The landscape assessment will include determination of the landscape character of the site and study area, the quality of the landscape, the existing land cover on site and the site's existing topography. This will be undertaken through a desk study to update the earlier studies undertaken by WSP in 2006 and site visits to determine changes in the baseline. A detailed study of the visual setting of the site and the potential visual receptors that may be affected by the development proposals will be undertaken. This will include mapping of the zone of visual influence of the proposals, which will inform the extent of the study area (potentially up to 10 km).

10.9 Representative viewpoints used in the 2007 assessment will be reviewed and discussed with SCDC. Photographs will be taken at each viewpoint and used to create a panorama of the view. Photomontages may be produced for some of the viewpoints if required (superimposing geometrically accurate wire lines of the proposal over the photographic image), which would be agreed in advance with the council. The precise locations, (Ordnance Survey grid reference), date, time of day and weather conditions will be described for each viewpoint taken.

10.10 The night time visual assessment will be informed by a lighting study, which will include a night time survey of baseline lighting levels and consideration of new sources of light associated with the proposed development, such as roads, buildings and sports pitches. Given that this issue will be addressed in the landscape and visual effects assessment, it is not considered appropriate to include a separate lighting assessment within the ES.

10.11 An updated tree survey will be undertaken on site in accordance with the requirements of BS5837 to assess the conditions of trees on site and identify root protection zones. The findings of this will be summarised in the ES and the report will be submitted separately in support of the application.

10.12 The significance of the effects on landscape and visual receptors will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using matrices. The assessment will cross-reference with the cultural heritage assessment where appropriate.

Likely mitigation measures

10.13 Based on this initial consideration of the landscape and visual features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise

measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Retention of key landscape features where possible and new tree planting
- High quality and sensitive design of the proposed master plan

Landscape and visual effects summary

Part 1		**Part 2**		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Changes to site topography / landform	✓			
Changes to local landscape character	✓			
Changes to land cover on site	✓			
Changes to landscape quality on site	✓			
Changes to sensitive views into the site	✓			

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

11 Land use and agriculture

Introduction

11.1 Proposed developments can have an effect on the local area through the introduction of a new land use, which can complement, co-exist or conflict with the existing land uses, and through the loss of existing uses on the site.

Currently known baseline

11.2 The principal existing land use on the primary development site is the golf course and driving range. In addition, there are small areas of agricultural land in the north and south east of this site, totalling approximately 19 ha. Parts of the agricultural land were surveyed in 2004 and found to be of grade 2 (very good) and grade 3a (good) quality in the north and grade 3a and 3b (moderate) quality in the south. The remaining land in the north was not surveyed due to access restrictions, but is likely to be of similar quality. There are three public rights of way in the west of the primary development site.

11.3 The potential areas of excavation for fill and infrastructure works are currently in agricultural use. These areas of land were surveyed in 2004. The 90 ha southern area was found to be of grade 3a quality in the north and grade 3b quality in the south, while the 25 ha northern area was found to be largely of grade 3a quality. There are no public rights of way in these areas.

Key issues

11.4 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Loss of best and most versatile agricultural land
- Loss of / damage to soil resources during earthworks
- Loss and / or fragmentation of agricultural holdings and effects on the viability of agricultural businesses

11.5 The effects associated with the loss of the golf course and the introduction of new residential, commercial, education and public open space land uses on site will be examined in the community, economic and social effects assessment. The effects associated with the introduction of a new waste use (a household recycling centre) will be considered in the operational waste management and minimisation strategy. The effects associated with changes to the existing public rights of way on site and provision of new public rights of way will be examined in the traffic and transport assessment. It is therefore not considered appropriate to duplicate coverage in this section.

11.6 The analysis is summarised in the table below.

Assessment methodology

11.7 The agricultural land classification and soil surveys undertaken for the 2007 ES will be reviewed to determine the quality of the agricultural land and soils on site. The need for additional surveys of areas not covered by the 2007 works will be considered. Due to the scale and nature of the proposals, it is not likely that land uses off site will be significantly affected by the proposed development. As a result, the assessment will focus on the site. The significance of effects will be determined by combining the importance of the agricultural land and soil resources with the predicted magnitude of change, using a matrix.

Likely mitigation measures

11.8 Based on this initial consideration of the land use and agriculture features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measure may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Preparation of a soil management plan

Land use and agriculture effects summary

Part 1		**Part 2**		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Loss of existing agricultural land on site	✓			
Damage to soil resources during earthworks	✓			
Loss / fragmentation of agricultural holdings and effects on viability of businesses	✗	Existing holdings / businesses High	Small to medium Long term	✓
Introduction of new land uses on site	✗	Land uses on site Low	Medium Long term	✗

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

12 Natural heritage

Introduction

12.1 Potential natural heritage effects that could arise from a development such as that proposed at Northstowe include habitat loss, disturbance of animals during and post-construction, loss of breeding and foraging habitat and increased recreational use of designated areas.

Currently known baseline

12.2 A number of surveys have been undertaken on site, including a phase 1 habitat and hedgerow survey, and surveys for birds, reptiles, fish, aquatic macro-invertebrates, terrestrial invertebrates, bats, amphibians and badgers. There is a range of habitats on site, including amenity grassland, arable set-aside, improved and semi-improved grassland, hedgerows, ponds and ditches.

12.3 The surveys identified populations of grass snake and common lizard on the primary development site and several of the ponds were found to be of high conservation value for aquatic macroinvertebrates. Common pipistrelles were recorded foraging on site. Badgers also use the site for foraging.

12.4 Evidence of water voles was recorded in Longstanton Brook within the southern potential area of excavation and infrastructure works. Badgers use both potential areas of excavation and infrastructure works for foraging. A population of common lizard was recorded on the edge of the northern area.

12.5 The great crested newt survey undertaken in 2011 recorded no evidence of breeding great crested newts in any of the 34 ponds surveyed. The breeding bird surveys recorded a total of 40 bird species within the primary development site, one of which is a UK BAP species and three of which feature on the Species of Conservation Concern (SoCC) red list. Twenty-four species were recorded within the southern excavation and infrastructure area, six of which are UK BAP species and four of which feature on the SoCC red list. Surveys of the northern area are to be completed.

12.6 There are no internationally or nationally designated nature conservation sites within 2 km of the site. The nearest locally designated site is the Over Railway Cutting County Wildlife Site (CWS), approximately 1.4 km to the north west, which consists of the south-facing slope of a disused railway.

Key issues

12.7 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Loss of existing habitats and creation of new habitats on site
- Changes in the composition of on site vegetation communities

- Effects on the use of the site by animals due to habitat loss and fragmentation
- Disturbance of protected species, both during and after construction

12.8 The analysis is summarised in the table at the end of this section.

12.9 The distance from the site to Over Railway CWS, and the nature of the CWS, were considered to make significant effects due to increased recreational use of this area unlikely.

Assessment methodology

12.10 The findings of the desk study and survey work undertaken to support the 2007 ES have been reviewed. Following a meeting with the SCDC ecologist in April 2011, it was agreed that the following surveys require updating:

- Phase 1 habitat survey (update of survey results submitted in 2007)
- Aquatic invertebrates (update of survey results of the seven ponds that scored over 2 in the assessment that was carried out by Norfolk Wildlife Services in 2007)
- Butterflies (a fixed transect will be walked on a total of three occasions during July and August. The transect route will be walked at a slow steady pace between 10.45 and 3.45 in suitable weather conditions)
- Great crested newts (already completed for the primary development site and southern excavation and infrastructure area)
- Breeding birds (already completed for the primary development site and southern excavation and infrastructure area)
- Barn owl (buildings and boxes will be assessed for signs of occupation)
- Otter and water vole (survey of all ditches on the primary development site and ten ponds. Ponds 3, 4, 5, 9, 10, 16, 17, 18, 19 and 21 will be surveyed either because they support a vegetation structure favoured by these species or because of their proximity to ditches within the site. Ditches / watercourses within the potential areas of excavation and infrastructure works will also be surveyed)
- Badgers (a survey of activity will be undertaken alongside the phase 1 survey)
- Bats (phase 1 bat surveys / building inspections will be undertaken on all buildings on site. The bat activity surveys will be undertaken in accordance with the Bat Conservation Trust's guidelines. According to these, eight surveyors will be required because the site falls within the size category of 75-200 ha)
- Reptiles (a standard seven visit survey will be undertaken using artificial refugia located in areas of suitable habitat)

12.11 The scope of the surveys and methodologies have been, or will be, agreed with the SCDC ecologist.

12.12 The assessment will be undertaken in accordance with the Institute of Ecology and Environmental Management's *Guidelines for Ecological Impact Assessment in the United Kingdom* (2006). In order to facilitate consistency of

assessment methodology throughout the ES, the method may be adapted to include consideration of the significance of effects by combining the importance of the identified receptors with the predicted magnitude of change, using a matrix.

Likely mitigation measures

12.13 Based on this initial consideration of the natural heritage features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset significant adverse effects will be determined through the EIA process:

- Retention of sensitive habitats on site where possible and creation of a suitable area and variety of new habitats for mitigation and enhancement
- Implementation of a construction environmental management plan, to include a range of best practice measures to minimise disturbance to protected species, such as buffer zones, seasonal restrictions etc as appropriate

Natural heritage effects summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Loss of existing habitats and creation of new habitats on site	✓			
Changes in the composition of on site vegetation communities	✓			
Effects on the use of the site by animals due to habitat loss and fragmentation	✓			
Disturbance of protected species during and post-construction	✓			
Increased recreational use of Over Railway CWS	✗	Over Railway CWS Medium	Negligible Long term	✗

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

13 Noise and vibration

Introduction

13.1 The proposed development has the potential to generate noise and vibration during site preparation, earthworks and construction. Additional road traffic has the potential to increase noise levels post-construction, as do fixed plant associated with the employment area and the operation of the proposed household recycling centre.

Currently known baseline

13.2 Noise measurements carried out by WSP in 2003 and 2006 found that a variety of sources contribute to noise levels at the site. These include road traffic on local roads and the A14, agricultural activities and occasional aircraft.

Key issues

13.3 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Increase in noise from site preparation, earthworks and construction activities
- Increase in noise from construction traffic associated with haul movements from the southern potential area of excavation to the primary development site along the B1050
- Increase in noise from post-construction traffic

13.4 The analysis is summarised in the table at the end of this section.

13.5 Consideration was given to the potential for significant noise effects from plant in the proposed employment area and operation of the proposed household recycling centre and foul water pumping station. However, these will be located in the north of the site, away from sensitive receptors, so significant effects are not considered likely.

13.6 The potential for significant effects from vibration during construction as a result of piling was considered. Where possible, continuous flight auger piling will be used, which does not give rise to significant levels of vibration. If ground conditions dictate that vibratory or impact piling is required, then vibration may be perceptible at receptors adjacent to the site. However, the distance from piling works to these receptors will mean that any vibration would be well below the level that could cause damage to buildings, and significant effects are therefore not likely.

Assessment methodology

13.7 Validation testing of the 2003 baseline noise survey will be undertaken to confirm its suitability for use in the new assessment. The proposed assessment methodology will be agreed with the council's environmental health officer.

13.8 The potential for increases in noise during construction will be assessed in accordance with the methodology set out in BS5228, and best practice recommendations will be given. It is envisaged that post-construction traffic noise increases will be assessed using the former Department of Transport / Welsh Office technical memorandum *Calculation of Road Traffic Noise* (CRTN) and traffic data obtained from the transport assessment.

13.9 The potential for existing noise sources, the Guided Busway and new proposed noise sources to affect the proposed dwellings will be considered in the design of the proposals. These issues are principally related to design and the suitability of the proposals in terms of land use planning and are therefore not considered to be EIA issues (EIA deals with the effects of the proposal on the environment, and not the effects of the environment on the proposal). These issues will therefore be examined in the planning supporting statement and the design and access statement as appropriate.

Likely mitigation measures

13.10 Based on this initial consideration of the noise and vibration features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Implementation of a construction environmental management plan, to include a range of best practice measures to minimise the generation of noise
- Travel planning measures to minimise private car travel

Noise and vibration effects summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Increase in noise from site preparation and construction activities	✓			
Increase in noise from construction traffic haul movements along B1050 from southern excavation area	✗	Neighbouring population High	Small to medium Short term	✓
Increase in noise from post-construction traffic	✗	Neighbouring population High	Small to medium Long term	✓
Increase in noise from plant and the operation of the recycling centre and pumping station	✗	Neighbouring population High	Negligible Long term	✗
Increase in vibration from construction activities	✗	Neighbouring population High	Negligible to small Short term	✗

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

14 Traffic and transport

Introduction

14.1 The proposed development will lead to increased traffic on the local road network during and post-construction. There will also be an effect on the local road infrastructure, as the proposal includes new site accesses and improvements to the existing B1050. New pedestrian and cycle links will also be provided.

Currently known baseline

14.2 The B1050 Longstanton western bypass opened in December 2008 to divert over 7,300 vehicles a day away from the town. It runs from Hatton's Road to the south of Longstanton to a roundabout adjacent to the site, where it rejoins the previous route of the B1050.

14.3 The A14 is the main strategic route around the north of Cambridge. Peak hour two-way flows reported in the 2007 ES for the stretch closest to the site were 4,629 for the AM peak and 5,577 for the PM peak, with relatively high percentages of HGVs (23% in the AM peak and 17% in the PM peak). The A14 in the vicinity of the site experiences serious congestion and a programme of improvement works was planned by the Highways Agency, including upgrading the carriageway to three lanes in each direction between Ellington and Fen Ditton, limiting junctions and creating a parallel distributor road for local traffic between Fenstanton and the Girton interchange. However, government funding reviews mean that the implementation of these works has been withdrawn and the A14 will be the subject of a new study.

14.4 The primary development site is adjacent to the route of the CGB, which is due to open in August 2011. The CGB will provide a public transit system along the disused Cambridge to St Ives railway line between Huntingdon and Cambridge. A park and ride stop will be provided at Longstanton, immediately to the north of the site, with up to 16 services per hour in each direction between the park and ride and Cambridge and a further six services per hour extending north to Huntingdon.

Key issues

14.5 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Increased traffic flows during and post-construction leading to impacts on the highway network and associated potential for increased pedestrian severance, driver delay and accident rates
- Changes to local road infrastructure, including upgrades to the B1050
- Creation of new non-motorised user (NMU) pedestrian, cycle and equestrian infrstructure

- Increased use of public transport and provision of part of a new bus route

14.6 The analysis is summarised in the table at the end of this section.

Assessment methodology

14.7 A transport assessment (TA) will be submitted in support of the planning application that will assess the impact of the proposed development on the capacity of highway infrastructure. The EIA will summarise the findings of this, but will focus on environmental issues associated with potential increases in traffic flows and any consequent effects on the local community, such as severance, driver delay or an increased accident rate.

14.8 The assessment will take account of *Planning Policy Guidance Note 13: Transport* (2011) and the IEMA *Guidelines for the Environmental Assessment of Road Traffic* (2003). Close consultation with key stakeholders, such as the Highways Agency and Cambridgeshire County Council's transport department, will be maintained throughout the assessment. In the first instance, a TA scoping report will be produced in addition to this document, for agreement with these consultees.

14.9 It is proposed that 2011 traffic flows to inform the baseline will be obtained from Cambridgeshire County Council's Cambridge sub-regional model (CSRM) and that potential effects will be assessed using data from the CSRM.

14.10 The significance of traffic and transport effects on sensitive receptors will be determined by combining the sensitivity of identified receptors with the predicted magnitude of change, using a matrix.

Likely mitigation measures

14.11 Based on this initial consideration of the traffic and transport features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Implementation of a construction management plan, to include measures to manage construction traffic movements
- Travel planning measures to minimise private car travel
- NMU infrastructure

Traffic and transport effects summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Increased traffic flows during construction	✗	Local traffic network / users / pedestrians High	Small Short term	✓
Increased traffic flows post-construction	✓			
Changes to local road infrastructure	✓			
Provision of new pedestrian and cycle routes	✗	Users of local cycle / pedestrian network High	Small to medium Long term	✓
Increased use of public transport and provision of new bus route	✗	Local public transport network / users High	Small to medium Long term	✓

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

15 Waste

Introduction

15.1 Proposals for development should ensure that waste is reduced as much as possible, and that during the construction and post-construction phases of the proposals waste arisings are either re-used or recycled where feasible. During construction, wastes should be correctly segregated to maximise re-use and recycling. Where any contaminated or hazardous arisings cannot be treated on site during remediation works, suitable disposal options should be identified as part of the environmental assessment process.

Currently known baseline

15.2 At present, the site is a source of agricultural and green waste and small quantities of commercial waste from the clubhouse, although the exact existing quantities of waste generated at the site are unknown. South Cambridgeshire's waste is largely managed at the Waterbeach Waste Management Park, which includes composting facilities and landfill, although recyclables are currently sent to a materials recovery facility in north London. A mechanical biological treatment plant is currently under development at Waterbeach.

Key issues

15.3 Waste arising from the site preparation and construction processes will require management. However, site waste management plans (SWMPs) are now required for all construction projects with a value over £300,000. This requirement, together with other construction phase waste management measures, will help to ensure that construction waste is minimised, re-used and recycled wherever possible and will ensure that there are no significant effects on the capacity of the local waste management infrastructure as a result of this phase of the development. A framework SWMP will be submitted with the planning application as an appendix to the waste management strategy.

15.4 There is generally limited likelihood of contamination across the majority of the primary development site and southern potential area of excavation for fill and infrastructure work, although there is a higher likelihood of contamination in the northern area that falls within the former airfield. The need for remediation of any contamination could generate contaminated waste that would require management and / or disposal, but this would be examined in the ground conditions assessment.

15.5 Post-construction, the proposals will lead to the generation of increased amounts of municipal and commercial waste and the introduction of a new household recycling centre. A waste design toolkit (in accordance with SCDC's requirements) will be included within the waste management strategy to be submitted with the planning application, which will detail proposed waste management, storage and collection arrangements and measures to minimise waste generation. It is therefore proposed that the issue of post-

construction waste should be examined in this toolkit, rather than in the EIA, as the quantities of waste involved with the toolkit and the new household recycling centre in place are likely to be insignificant in relation to existing waste generation levels within the county.

15.6 It is therefore proposed that waste is not scoped into the EIA and will not be considered in the ES.

15.7 The analysis is summarised in the table below.

Waste effects summary

Part 1		**Part 2**		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Generation of construction waste that requires management / disposal	✗	Local waste management facilities Medium	Negligible Short term	✗
Generation of municipal and commercial waste that requires management / disposal	✗	Local waste management facilities Medium	Small Long term	✗

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

16 Water, flooding and drainage

Introduction

16.1 The water, flooding and drainage assessment will focus on effects associated with the potential increase in run-off from the site, reduced groundwater recharge rates and any physical effects on surface water quality. The assessment will also examine the proposed surface water drainage system and consider the increase in demand for wastewater treatment and drinking water supply.

Currently known baseline

16.2 There are several man-made ponds on the primary development site and fen drains that drain the surface water run-off from the golf course. These discharge into Reynolds Drain via culverts beneath the route of the CGB. Reynolds Drain generally flows to the east, discharging either into the Cottenham Lode or the Burgess Drain (north of Cottenham), depending on flow conditions within the Cottenham Lode. The Burgess Drain discharges into the Left Wing Drain to the north of Cottenham, which then discharges into the Great Ouse. The Cottenham Lode discharges into the Old West River to the north east of the site.

16.3 Longstanton Brook runs through the west of the southern potential area of excavation and infrastructure work, and there is a small watercourse in the north of the northern area that discharges into Reynolds Drain via a culvert. Longstanton Brook becomes the Swavesey Drain at Gravel Bridge, which eventually discharges into the Great Ouse via the Webbs Hole Sluice.

16.4 The Environment Agency's flood maps indicate that the majority of the primary development site is located in flood zone 1, although the south east is within an area of floodplain protected by existing flood defences. Detailed flood modelling undertaken as part of the 2007 EIA indicates that part of the site along its eastern boundary is theoretically sensitive to flooding from flood waters backing up through the culverts beneath the CGB route. This is a worst-case scenario, as the model did not take account of the CGB track embankment or the restrictive nature of the culverts. The surrounding villages, including Longstanton, are vulnerable to flooding from several watercourses.

16.5 The majority of the southern potential area of excavation and infrastructure work is in flood zone 1, although the western edge is within an area of extreme flood. The northern area falls within the area of floodplain protected by existing flood defences.

16.6 The primary development site is partially underlain by a secondary (A) aquifer (River Terrace Deposits) and partially by unproductive strata (Ampthill Clay). Site investigations undertaken for the 2007 EIA found shallow groundwater, largely contained within the sand and gravel of the River Terrace Deposits. The southern and northern potential areas of excavation and infrastructure are

underlain by unproductive strata (Ampthill Clay and Kimmeridge Clay respectively). The site is not within a groundwater source protection zone.

16.7 Potable water for the existing uses on site is currently supplied via private abstractions. Longstanton is served by a public sewer network operated by Anglian Water. Foul effluent from Longstanton and the surrounding area is pumped to existing sewage treatment works (STW) at Over and Uttons Drove. The Over STW discharges directly to the Great Ouse, while the Uttons Drove STW discharges into the Swavesey Drain system. The Environment Agency has raised concerns regarding the impact of effluent discharge on flood risks within the Swavesey Drain system. In addition, Longstanton currently has severe capacity issues and sewerage overloading and flooding have become frequent events due to failure of the main pumping stations.

Key issues

16.8 Following the methodology identified in section 5 of this report, the scoping process has identified the following likely significant effects of this project, which are included within the preliminary EIA scope:

- Effects on surface water physical quality from pollution due to increased sediment during construction
- Effects on the hydrology and associated flood risk of surrounding watercourses due to increased surface water run-off
- Effects on groundwater hydrology on site from reduced recharge rates associated with the increased impermeable area on site
- Effects arising from the increased demand for potable water and wastewater treatment and the associated upgrade works required

16.9 The analysis is summarised in the table at the end of this section.

Assessment methodology

16.10 The surface water features survey undertaken to inform the 2007 EIA and an updated desk study will be used to determine the existing water environment on and in the vicinity of the site and to identify potential sensitive receptors. Proposals to address surface water run-off will be considered, taking account of the need to integrate with future development at Northstowe, and sustainable drainage systems will be incorporated into the master plan where possible. The Environment Agency will be consulted throughout the assessment work.

16.11 A flood risk assessment will be undertaken in accordance with *Planning Policy Statement 25: Development and Flood Risk* (2010), and the results will be summarised in the ES chapter. The assessment methodology and findings will be discussed with the Environment Agency and the Internal Drainage Board.

16.12 Cambridge Water Company and Anglian Water will be consulted on existing water supply and wastewater drainage capacity and any upgrade works

required to serve the proposed development. The potential effects of such works, and any constraints to delivery, will be examined in the assessment.

16.13 The significance of effects on the water environment will be determined by combining the sensitivity of the identified receptors with the predicted magnitude of change, using a matrix.

Likely mitigation measures

16.14 Based on this initial consideration of the water environment features that could possibly be affected by this EIA development proposal, it is considered that the following mitigation measures may be appropriate. The precise measures to prevent, reduce and offset any significant adverse effects will be determined through the EIA process.

- Implementation of a construction environmental management plan, to include a range of best practice measures to minimise pollution of surface water
- Use of sustainable drainage systems
- Preparation of a Water Conservation Strategy to set out measures to minimise water consumption

Water, flooding and drainage summary

Part 1		Part 2		
Main effect	**Clearly significant?(1)**	**Receptor importance / sensitivity(2)**	**Magnitude or scale of effect(3)**	**Likely significant?**
Effects on surface water quality from increased sedimentation during construction	✓			
Increased surface water run-off post-construction and associated potential increase in flood risk	✓			
Reduced groundwater recharge post-construction	✗	Groundwater beneath site Medium	Medium to large Long term	✓
Increased demand for wastewater treatment and potable water supply (and any associated upgrade works)	✓			

Notes

1. Effects that are classified as clearly significant in part 1 of the process do not need to be considered further in part 2

2. Categories = high, medium, low, negligible (takes into account geographical level of importance)

3. Categories = large, medium, small, negligible (takes into account whether effect is short or long term)

17 Cumulative effects

17.1 The proposed development will form an initial phase of the wider Northstowe new town development. In accordance with good practice, it will be necessary to consider the potential cumulative effects of the full Northstowe development. A qualitative cumulative effects assessment will therefore be included in a separate chapter of the ES following the main assessments. The 2007 EIA examined the potential effects of the wider new town development, so the significant residual effects identified in the 2007 ES will be used as the basis for the cumulative effects assessment. The assessment will therefore be based on the 2007 master plan as updated by a forthcoming refreshed vision, including consideration of the 'reserve land' as part of the future Northstowe wider development.

17.2 Cumulative effects can only arise where the Northstowe phase 1 scheme has a significant effect in its own right. Where the effects of this scheme are not significant, any significant effects of the full Northstowe development would result solely from the future phases of development. These effects would need to be examined in any future applications for the wider development, which would then have to take account of the phase 1 scheme.

17.3 The potential for effects in combination with other schemes that are operational / constructed, consented, or for which planning permissions are currently being sought will also be examined within the EIA where appropriate. The potential for cumulative effects with other developments will be considered only when sufficient information is available, i.e. when a project is within the planning domain and there is adequate information publicly available.

17.4 The potential for cumulative effects as a result of impact interactions at the receptor level will also be considered where necessary.

18 Summary

18.1 From this scoping exercise it has been possible to reach a preliminary view on the environmental features that are likely to be significantly affected by the proposed development and should be included within the EIA. The environmental features are described here under separate headings, but the EIA will pay close attention to the interrelationships of the various factors, in order to assemble a holistic picture of the likely significant effects and mitigation measures. It should also be noted that EIA is an iterative process, enabling matters not recognised early in the project to be addressed subsequently.

18.2 Based on the preliminary scope determined within this report, the provisional ES chapters will be as follows:

Non-technical summary
1. Introduction
2. Site description and development proposals (including alternatives)
3. Environmental issues and methodology
4. Landscape and visual effects
5. Cultural heritage
6. Natural heritage
7. Traffic and transport
8. Air quality
9. Noise
10. Geology, hydrogeology and contamination
11. Water, flooding and drainage
12. Community, economic and social effects
13. Agriculture and soil resources
14. Cumulative effects
15. Summary tables
16. Glossary

18.3 Each ES topic chapter will follow a similar format, including sections on guidance and legislation, methodologies, reporting the baseline conditions, discussion of future baseline, impact assessment during and post-construction, mitigation, and residual effects. The ES will include appropriate illustration material (maps, diagrams and photographs) and will be supported by technical documents that will be supplied as appendices.

18.4 The consideration of the likely significant effects in this scoping report is preliminary. The local planning authority and its consultees are invited to comment on the intended scope of the EIA and to highlight any likely significant environmental issues that may have inadvertently been omitted.

Appendix A: Schedule 4 of the of the EIA Regulations

PART I

1. Description of the development, including in particular:

(a) A description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases
(b) A description of the main characteristics of the production processes, for instance, nature and quantity of the materials used
(c) An estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the development

2. An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.

3. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.

4. A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:

(a) The existence of the development
(b) The use of natural resources
(c) The emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant or appellant of the forecasting methods used to assess the effects on the environment

5. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.

6. A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.

7. An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant or appellant in compiling the required information.

PART II

1. A description of the development comprising information on the site, design and size of the development.

2. A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.

3. The data required to identify and assess the main effects which the development is likely to have on the environment.

4. An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for his choice, taking into account the environmental effects.

5. A non-technical summary of the information provided under paragraphs 1 to 4 of this Part.

Appendix B: Scoping checklist

Environmental Feature	Component	Possible construction effect envisaged?	Possible post-construction effect envisaged?	Main effect?	Likely significant effect?	Comments / reason for exclusion from further consideration in the scoping process
AIR AND CLIMATE	Local air quality	Y	Y	Y	?	Increased emissions of NO_2 and PM_{10} on the local road network around the site due to increased traffic.
	Particulates and dust	Y	N	Y	Y	Properties within 200 m of the site may be affected by dust generated during earthworks and construction.
	Odour	N	Y	?	?	Potential for odour from the proposed foul water pumping station and household recycling centre.
	Local climatic effects	N	N	N	N	The nature of the proposed development limits the potential for local climatic effects.
	Transboundary air quality	N	N	N	N	The scale, nature and location of the proposed development limit the potential for transboundary effects.
	Global climate	N	N	N	N	The scale, nature and location of the proposed development limit the potential for effects on the global climate.
	Carbon dioxide budget / emissions	Y	Y	Y	?	There will be CO_2 emissions associated with materials / construction, travel and occupation of the development.
COMMUNITY, ECONOMIC AND SOCIAL EFFECTS	Population profile and density	N	Y	Y	Y	The influx of new population has the potential to affect local population profile and density.
	Demography	N	Y	Y	?	The influx of new population has the potential to affect the local area's demography.
	Housing	N	Y	Y	Y	Provision of new market and affordable housing.
	Employment	Y	Y	Y	?	Creation of employment during construction and provision of employment land post-construction.
	Lifestyle / standard of living	N	N	N	N	The nature of the proposed development means it will not affect local lifestyles or standards of living.
	Education / health / local services	N	Y	Y	Y	Potential increase in pressure on local services as a result of the population increase. Provision of new school, community facilities and public open space. Potential effects on local businesses from increased demand and competition.
	Public health and safety	N	N	N	N	The nature of the proposed development limits the potential for health and safety effects.
	Social inclusion / exclusion	N	N	N	N	The nature of the proposed development means it will not affect social inclusion.
	Local environmental amenity	Y	N	Y	?	Construction works may affect the amenity of local residents and users of the public rights of way in the west of the site.
	Electromagnetism / radiation	N	N	N	N	The nature of the proposed development means that this issue is not applicable.
	Telecommunications	N	N	N	N	The nature of the proposed development means that telecommunications links will not be affected.
	Tourism	N	N	N	N	The nature and location of the proposed development mean that there will be no tourism effects.
	Microclimate	N	N	N	N	The scale of the proposed development limits the potential for microclimate effects.
CULTURAL HERITAGE	Archaeology / monuments	Y	N	Y	Y	Potential for disturbance of archaeological remains during construction. There are no scheduled monuments close to the site, so no setting effects are envisaged post-construction.
	Buildings / structures / architecture	Y	Y	Y	Y	Potential for setting effects on listed buildings in the vicinity of the site and on Longstanton conservation area.
	Historic parks and gardens	N	N	N	N	There are no registered historic parks and gardens with 5 km of the site.
	Other historic interest	Y	Y	?	?	There is the potential for effects on the historic landscape of the site.
GROUND CONDITIONS	Geology and geomorphology	N	N	N	N	No known sensitivity (i.e. no geological SSSIs in the vicinity of the site).
	Ground contamination	Y	Y	Y	?	Potential for mobilisation of existing contamination during and post-construction.
	Erosion / deposition / stability	Y	Y	Y	?	Significant earthworks are proposed across the site.
	Mineral resources	N	N	N	N	The site is not used or allocated for commercial minerals extraction.
	Soils / agricultural land quality	Y	N	Y	?	Loss of agricultural land and movement of soils during earthworks.
LANDSCAPE AND VISUAL EFFECTS	Landform / topography	Y	N	Y	Y	Change to landform and topography of the site as a result of the proposed earthworks.
	Land cover	Y	Y	Y	Y	Land cover will change from a golf course and agricultural land to buildings and public open space.
	Landscape character	Y	Y	Y	Y	Character will change from golf course / agriculture to urban.
	Landscape quality	Y	Y	Y	Y	Quality will change from golf course / agriculture to urban.
	Protected landscapes / townscapes	Y	Y	Y	Y	Changes to views from Longstanton conservation area.
	Sensitive views	Y	Y	Y	Y	Potential for effects on views from surrounding villages and public rights of way.
	Wilderness	N	N	N	N	The development area and its surrounding environment are not classified as wilderness.

Environmental Feature	Component	Possible construction effect envisaged?	Possible post-construction effect envisaged?	Main effect?	Likely significant effect?	Comments / reason for exclusion from further consideration in the scoping process
LAND USE	Agriculture / horticulture	Y	N	?	?	Loss of existing agricultural land.
	Forestry	N	N	N	N	No forestry on site or proposed.
	Open space / rights of way	N	Y	Y	?	Introduction of new public open space and rights of way. Loss of existing golf course.
	Mineral extraction	N	N	N	N	No minerals uses on site or proposed.
	Industrial / commercial / retail	N	Y	Y	?	Introduction of new commercial / retail uses.
	Residential	N	Y	Y	?	Introduction of new residential use.
	Health / social / education	N	Y	Y	?	Introduction of new education use.
	Waste disposal / processing	N	Y	Y	?	Introduction of new waste use (household waste recycling facility).
NATURAL HERITAGE	Habitat types	Y	Y	Y	Y	Loss of on site habitats and creation of new habitats.
	Plant communities	Y	Y	Y	Y	The proposed development will change the site's flora.
	Animal communities	Y	Y	Y	Y	The proposed development could change the way the site is used by animal groups.
	Individual / protected species	Y	Y	Y	Y	There is a range of protected species on site – potential for disturbance and habitat loss effects.
	Ecosystem integrity	N	N	N	N	The nature of the surrounding habitats suggests overall integrity will not be affected.
	Wildlife conservation	Y	Y	Y	Y	Potential for effects on protected species and a locally designated nature conservation site.
	Resource management	N	N	N	N	The management of natural resources will not be affected.
	Natural processes	N	N	N	N	No changes are predicted to natural processes.
NOISE AND VIBRATION	Noise	Y	Y	Y	Y	Noise will be generated by earthworks, construction and increased traffic.
	Vibration	Y	N	Y	?	Potential for vibration from piling during construction.
WATER ENVIRONMENT	Surface water quality	Y	Y	Y	Y	Pollution during construction and run-off from roads post-construction may affect the ponds and ditches on site.
	Surface water hydrology	N	Y	Y	Y	Increased impermeable area could increase run-off rates.
	Surface water temperature	N	N	N	N	No processes are proposed that could change surface water temperature.
	Groundwater quality	Y	Y	Y	Y	Pollution during construction and run-off from roads post-construction may affect groundwater.
	Groundwater hydrology / recharge	N	Y	Y	?	Potential for reduced groundwater recharge due to increased impermeable area.
	Groundwater temperature	N	N	N	N	No processes are proposed that could change groundwater temperature.
	Coastal / oceanic water quality	N	N	N	N	The site is not located near the coast.
	Coastal water temperature	N	N	N	N	The site is not located near the coast.
	Coastal processes / hydrodynamics	N	N	N	N	The site is not located near the coast.
	Flood risk	N	Y	Y	Y	The scale and nature of the development require a flood risk assessment to be undertaken.
	Availability of utility services	N	Y	Y	Y	The development will increase the demand for water supply and wastewater treatment.
TRAFFIC AND TRANSPORT	Traffic flows	Y	Y	Y	Y	Construction and post-construction traffic increases could affect severance, driver stress and delay.
	Infrastructure	N	Y	Y	Y	Works to the B1050 and new site accesses.
	Road safety	N	Y	Y	?	Increased traffic could affect the accident rate.
	Pedestrians and cyclists	N	Y	Y	?	New pedestrian and cycle links will be created and increased traffic could affect amenity of adjacent NMU routes and crossing time.
	Public transport (bus, rail, tram)	N	Y	Y	?	Increased use of bus and train services and provision of part of a new bus route.
	Air traffic	N	N	N	N	No association with air traffic.
	Water traffic	N	N	N	N	No association with water traffic.
WASTE	Waste management	Y	Y	Y	?	Increased waste generation will require management.
	Waste characterisation	Y	Y	N	N	Change from generation of agricultural and green waste to construction, municipal and commercial waste.

Appendix C: Scoping matrix

Determining whether a main effect could be significant