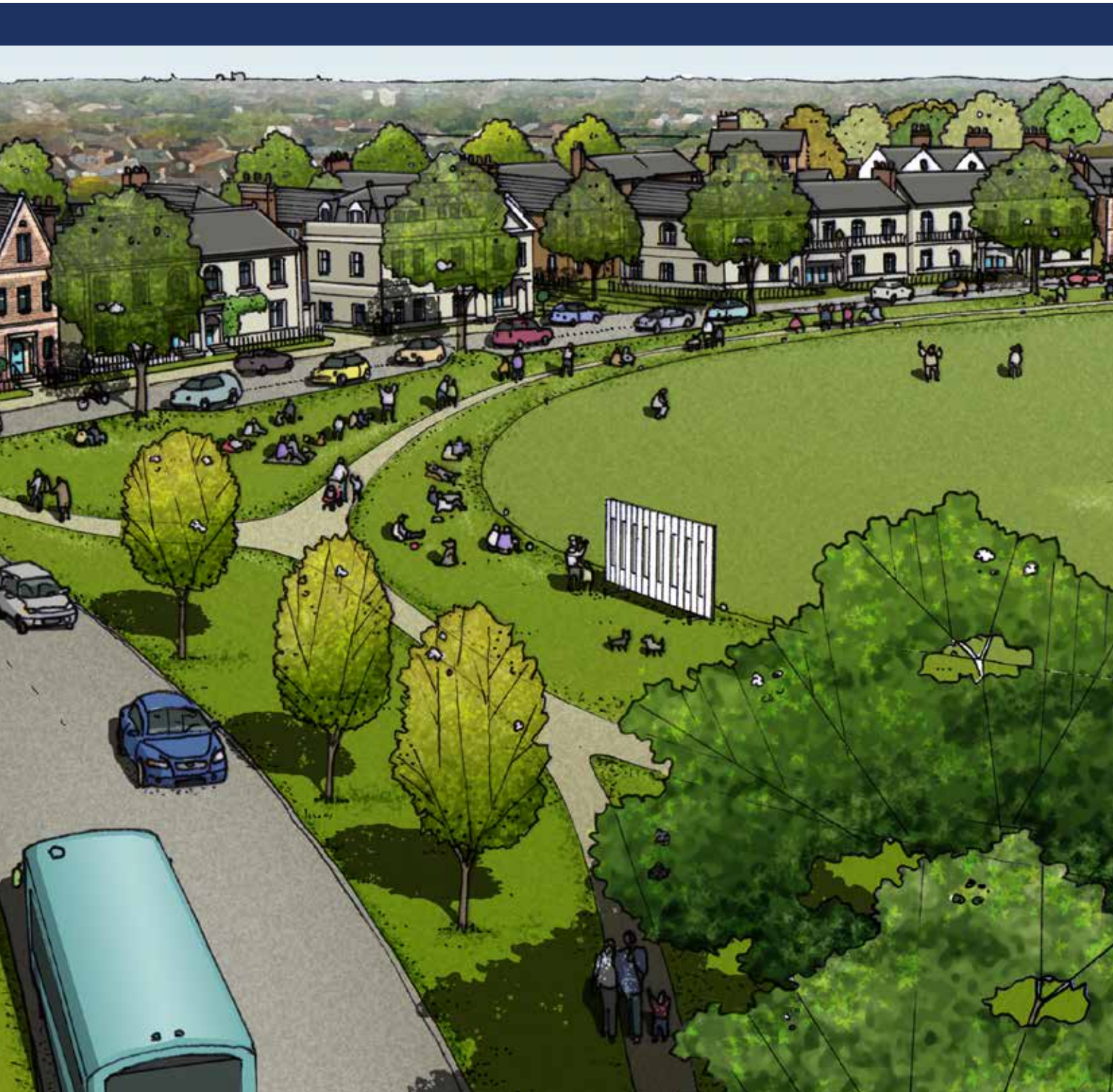


A Sustainable Urban Extension to the North East of Leicester

Supplementary Environmental Statement

August 2014

COMMERCIAL ESTATES GROUP



NEoL SUE

**Supplementary Environmental
Statement (August 2014)**

Commercial Estates Group

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1.0 Introduction

- 1.1 This Supplementary Environmental Statement ('Supplementary ES (August 2014)') has been submitted on behalf of Commercial Estates Group ('CEG') to provide further information in relation to the North East of Leicester Environmental Statement ('the ES (December 2013)') for the development of a sustainable urban extension ('SUE') on land to the North East of Leicester ('NEoL'). The site falls in part within the administrative boundary of Charnwood Borough Council ('CBC') and in part within the boundary of Leicester City Council ('LCiC'). The ES (December 2013) accompanied a hybrid planning application submitted to CBC (ref. P/13/2498/2) and LCiC (ref. 20132317) on 20 December 2013.
- 1.2 Following submission of the ES (December 2013), and in response to consultation and further work, various amendments to the development have been put forward.
- 1.3 The purpose of this Supplementary ES (August 2014) is to provide information on additional surveys and analysis undertaken in relation to those amendments since the submission of the ES (December 2013) and to identify, where relevant, the extent of any additional or amended environmental effects not previously identified.

The Site

- 1.4 The site red line boundary is located at Appendix 1. This remains unchanged from the site boundary submitted with the ES (December 2013).

Amendments to Scheme

- 1.5 The Supplementary ES (August 2014) provides an updated assessment of a series of updated parameter plans which take account of various minor changes to the scheme. Copies of the parameter plans which have been replaced are provided at Appendix 2 to this Supplementary ES, the amended highways plans are provided within the Transport Assessment ('TA') appendices (Appendix 6) and the changes to the scheme are described below.
- 1.6 Table C3.1 of the ES (December 2013) provided a schedule of the plans which were assessed as part of the NEoL SUE Environmental Impact Assessment ('EIA'). Table 1.1 below provides updates to that schedule.

Table 1.1 Schedule of Plans and Elevations

Drawing Title	At December 2013	At August 2014
Detailed highway layout plans		
Highways Layout (Sheet 1 of 3)	A046980-7/35/12/PL001 Rev B	A046980-7/35/12/PL001 Rev D
Highways Layout (Sheet 2 of 3)	A046980-7/35/12/PL002 Rev B	Not replaced

Drawing Title	At December 2013	At August 2014
Highways Layout (Sheet 3 of 3)	A046980-7/35/12/PL003 Rev B	Not replaced
Indicative Cross Section	A046980-7/35/12/PL004 Rev C	A046980-7/35/12/PL004 Rev F
Proposed Bridge Crossing – Preliminary General Arrangement	A046980-7/35/12/PL006 Rev B	Not replaced
NMU and Bus Routes	A046980-7/35/12/PL007 Rev B	A046980-7/35/12/PL007 Rev C
Indicative General Arrangement	A046980-7/35/12/PL008 Rev A	A046980-7/35/12/PL008 Rev B
Proposed Sheet Pile Detail For Pond Pinch Point	A046980-7/35/12/PL009 Rev A	A046980-7/35/12/PL009 Rev E
Illustrative Cross Sections A-A to C-C	A046980-7/35/12/PL010	Withdrawn
Parameter Plans for Outline Element		
Development Parameters 1. Development Extent	PS12152 066 Rev G	PS12152 066 Rev H
Development Parameters 2. Density	PS12152 067 Rev H	PS12152 067 Rev I
Development Parameters 3. Building Heights	PS12152 0681 Rev G	PS12152 0681 Rev H
Development Parameters 4. Access	PS12152 069 Rev G	PS12152 069 Rev H
Development Parameters 5. Land Use	PS12152 070 Rev G	PS12152 070 Rev H
Development Parameters 6. Landscape Infrastructure	PS12152 071 Rev H	PS12152 071 Rev I
Landscaping Proposals		
Soft Landscape Proposals (Sheet 1 of 3)	1603/P29 Rev B (Sheet 1 of 3)	Withdrawn
Soft Landscape Proposals (Sheet 2 of 3)	1603/P29 Rev B (Sheet 1 of 3)	Withdrawn
Soft Landscape Proposals (Sheet 3 of 3)	1603/P29 Rev B (Sheet 1 of 3)	Withdrawn

- 1.7 The proposals comprise the development of the NEoL SUE. Outline planning permission is sought for up to 4,500 new dwellings, up to 13ha of employment land, two local centres, one district centre, one food store, reserved land for traveller site, school and healthcare facilities, allotments, open space and other associated works. Full permission is sought for new southern link road and associated works.
- 1.8 The amendments to the Development do not give rise to any changes to the description of the proposals as follows:-
- 1 Detailed permission for the construction of the southern link road connecting in to Sandhills Avenue including footpaths/cycleways, landscaping and associated engineering works (including SUDs).
 - 2 Outline permission for a mixed use residential-led development, to be developed in phases, including; preparatory works including demolition

as necessary; up to 4,500 residential units (Use Class C3, including affordable homes); Class C2 (specialist) housing; up to 13 hectares of employment land (Use Classes B1(a), (b) and (c), B2 and B8); two local centres and one district centre (including uses in Use Classes A1 - A5, B1, C1, D1 and D2 and including a food-store (up to 4,500sqm gross) with associated car parking); provision for school facilities (including a 'reserve' site for secondary school); healthcare facilities; a reserve site for gypsies and travellers; open space including allotments; parks; natural and semi natural green space; amenity green spaces; facilities for children and young people; outdoor sports provision including playing pitches and tennis courts; associated infrastructure including footpaths/cycleways, a north west link road between Barkby Lane and the A607 with a bridge across the railway line; and associated engineering and landscaping works (including SUDs).

- 1.9 The changes to the scheme are minor in extent, are set out on the amended plans and are described briefly below.

Parameter Plans

- 1 There are lower densities proposed to the edge of the north eastern corner of the development (Parameter Plan 2) than previously assessed;
- 2 There are reduced heights proposed to the north eastern corner of the development (Parameter Plan 3) than previously assessed;
- 3 A cycle/footpath link from Barkby Lane to the north eastern corner has been included (Parameter Plan 4 and supporting text);
- 4 There is reference to additional tree planting to create a tree skyline to the north of the eastern development site (supporting text for Parameter Plan 5 and 6) than previously assessed; and
- 5 The extent of the development area (Parameter Plan 1, 2, 3 and 5) has been amended to reflect changes described above, particularly the development area to the north edge by Barkby Lane has been reduced.

Illustrative Masterplan

- 1.10 An illustrative masterplan is provided at Appendix 3 to show one way in which a detailed scheme could come forward in accordance with the parameter plans. This illustrative masterplan incorporates responses to the recent changes to the parameter plans. For completeness these changes comprise:-

- 1 Existing houses to the north around the Duck Pond and along Barkby Thorpe Lane close to the school have been added;
- 2 The tree locations by Pochin Estate have been checked for new planting;
- 3 Trees/ponds/paths to the south have been updated to match the latest landscape strategy plan; and

4 Additional trees have been added to the north eastern edge to account for changes made to Development Parameter 6: Landscape Infrastructure (ref. PS12152 071 Rev I).

1.11 The illustrative masterplan is provided as context and for information purposes only. It is not the subject of formal EIA.

Additional Analysis

1.12 In addition to the changes to the parameter plans, and since submission of the NEoL SUE ES (December 2013) additional assessment and consultation have occurred which influence the EIA. These are summarised below:-

Highways

1.13 Within the ES (December 2013) were an interim TA and Framework Travel Plan ('FTP') at Appendix G1 and G2 respectively, which have now been replaced at Appendix 6 and 7 of this Supplementary ES (August 2014). Additionally a bus strategy has been appended to the FTP.

1.14 It was agreed with the highway authorities (the Highways Agency, Leicestershire County Council ('LCoC') and LCiC) when producing the ES (December 2013) that the Transport Assessment should be undertaken using the County Council's traffic model. However, LCoC were at the time undertaking refinement work on the Leicester and Leicestershire Integrated Transport Model ('LLITM'), and it was agreed that it would be pragmatic to undertake the TA using this refined version of the model (the Highways Agency also advised that they would only sign off the TA using this refined model).

1.15 Following consultation and agreement with the local Highways Authorities (LCoC and LCiC), the results of LLITM modelling work have now been assessed which has necessitated the TA to be updated (see Appendix 6).

Hamilton Park/Lake

1.16 As a result of consultation, remodelling of the lake to the south of the site has been undertaken which has necessitated amendments to the landscaping plans. The remodelled lake retains the same capacity as originally proposed.

1.17 To assist with understanding these changes a document submitted to CBC and LCiC entitled '*North East of Leicester Sustainable Urban Extension: Southern Access and Hamilton Park Mitigation: Non-Technical Synopsis*' is included at Appendix 4.

Ecology Surveys

1.18 Great Crested Newts ('GCN') surveys have been completed on site and the results have now been assessed following Leicester City Council's comments.

Built In Measures

- 1.19 Discussions with the determining authorities and consultees have led to a refinement of various additional features of the development, which could form the basis of obligations within a Section 106 Agreement in due course. These include, for example matters relating to education, community contributions and infrastructure.

Scope of Supplementary ES (August 2014)

- 1.20 Consideration has been given to the extent to which the changes and additional surveys identified above will affect the conclusions described in the ES (December 2013). Where additional information is required this has been provided within this Supplementary ES (August 2014). The changes do not give rise to additional or different environmental effects requiring consideration in relation to the following chapters of the ES (December 2013):-

- 1 Chapter K – Heritage
- 2 Chapter L – Agriculture and Soils

- 1.21 The Supplementary ES (August 2014) should be read in conjunction with the ES (December 2013) and provides the following information.

Landscape & Visual Impact

- 1.22 Chapter D of the ES (December 2013) provided information from an assessment of the NEoL SUE scheme in relation to its landscape and visual impact on the surrounding area. Section 2.0 of this Supplementary ES (August 2014) has been prepared to provide information from an updated assessment of the changes to the development proposals. These comprise the changes to the southern access road and the re-profiling and re-positioning of the lake in addition to the revised landscape proposals, addressing the treatment of the land south of Melton Brook and north of Hamilton.

Ecology

- 1.23 An amphibian survey was undertaken at the large pond within Hamilton Park and the results were described in Chapter E of the ES (December 2013). During this assessment of the site, using the Habitat Suitability Index (HSI) for great crested newts, it was concluded that it was highly unlikely that this species would be present within the waterbody. However, taking into account Leicester City Council comments on the site and revised proposals to conduct reshaping works on the pond, it was considered useful to confirm the prediction of the HSI with targeted fieldwork.
- 1.24 This work has now been completed. The results are included at Section 3.0 of this Supplementary ES and an assessment of any potential environmental effects arising from this extended survey work is included.

Water Environment

- 1.25 The remodelling of the large pond located at Hamilton Park has necessitated a reassessment of the changes to the environment that might arise in respect to the water environment. Chapter F of the ES (December 2013) previously assessed the significant environmental effects for the scheme and Section 4.0 of this Supplementary ES (August 2014) provides information on changes that should be taken into account.

Transport

- 1.26 As described in Chapter G of the ES (December 2013), work was, at that time, yet to be fully completed on the TA due to availability of information reasonably available to the EIA team. It had been previously agreed with the highways authorities (the Highways Agency, LCoC and LCiC) that the Transport Assessment should be undertaken using the County Council's traffic model (LLITM Version 5). This model forecasts the wider area impact of the NEoL SUE proposals and provides a more accurate picture of the impacts of development. LCoC were undertaking refinement work on LLITM at the time of submission of the ES (December 2013) and as such completion of the survey work with reference to this information was delayed.
- 1.27 The work has now been completed and a replacement TA has been produced (Appendix 6). As a result, Appendix G1 of the ES (December 2013) is now withdrawn. An assessment of the potential significant environmental effects has now been undertaken using the data identified in the revised TA and Section 5.0 of this Supplementary ES (August 2014) provides information on changes to Chapter G of the ES (December 2013) that should be taken into account as a result of the revised TA.

Air Quality

- 1.28 Additional traffic data arising from the revised TA has been assessed against air quality modelling described in Chapter H of the ES (December 2013). Section 6.0 of this Supplementary ES (August 2014) provides a review of any changes to Chapter H of the ES (December 2013) which should be taken into account.

Noise & Vibration

- 1.29 Additional traffic data arising from the revised TA has been assessed against noise and vibration modelling described in Chapter I of the ES (December 2013). Section 7.0 of this Supplementary ES (August 2014) provides a review of any changes to Chapter H of the ES (December 2013) which should be taken into account.

Socio-Economics

- 1.30 Section 8.0 of this Supplementary ES (August 2014) reviews changes to the socio-economic effects of the scheme since the submission in the ES

(December 2013). This takes account of consultation responses received on the potential impact of the development on local facilities and amenities (e.g. health, policing, education, open space and recreation).

Updated Policy Review

- 1.31 To the extent to which it is relevant to the process of EIA, the ES (December 2013) includes a brief summary of planning policy relevant to establish the context within which the NEoL SUE Proposals have been brought forward.
- 1.32 Since the ES was completed, changes to this policy context have been reviewed and are identified below.

National Policy/Guidance

- 1.33 The National Planning Policy Guidance ('PPG') was launched by the Department for Communities and Local Government ('DCLG') on 6 March 2014 to support the National Planning Policy Framework ('NPPF'). The PPG sets out the aim of EIA as a process to *"protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision making process"* (ref. 4-002-20140306).
- 1.34 Where relevant to technical assessments, the PPG is referenced individually in later sections of this Supplementary ES (August 2014).

Local Policy

- 1.35 The Leicester City Local Development Framework Core Strategy (2010) has been revised (July 2014). Policies related to this development remain unaffected.

Alternatives

- 1.36 This Supplementary ES (August 2014) assesses the scheme in the context of changes made following consultation responses on the application and further survey work undertaken at the site. Given the nature of the amendments described above, alternatives are not considered in this Supplementary ES (August 2014).

EIA Methodology, Processes and Difficulties

- 1.37 Amendments to any methodologies, processes and any difficulties associated with the supplementary environmental information provided in this Supplementary ES (August 2014) are stated where relevant within relevant sections. These amendments should be read in conjunction with the information provided in the ES (December 2013).

1.38 There have been no particular difficulties in preparing this Supplementary ES to be highlighted.

Consultation

1.39 As described within Section B4.0 of the ES (December 2013) consultation feeds into the EIA process in three different ways:-

- 1 Responses to consultation on the scope and methodology for the assessment;
- 2 Responses from the consultees on specific issues, mainly as the process of EIA and design development has progressed; and
- 3 Responses from consultation carried out in relation to environmental matters including as part of public consultation.

1.40 Following submission of the ES (December 2013) and the hybrid application, the period of statutory consultation as well as on going liaison with key stakeholders has fed into the refinement of the development proposals which are the subject of this Supplementary ES (August 2014). A number of meetings and discussions in respect of various issues have taken place since January 2014.

1.41 In addition, this process has been informed by formal representations submitted by the following groups as part of the statutory consultation process:-

- 1 Charnwood Borough Council
- 2 Leicester City Council
- 3 Leicestershire County Council
- 4 Barkby and Barkby Thorpe Parish Council
- 5 Syston Town Council
- 6 Thurmaston Parish Council
- 7 Highways Agency
- 8 National Grid
- 9 Leicestershire Local Access Forum
- 10 Natural England
- 11 Network Rail
- 12 Campaign to Protect Rural England
- 13 NHS
- 14 Queniborough Parish Council
- 15 Ramblers' Association
- 16 Sport England
- 17 Leicestershire Police

- 18 English Heritage
- 19 Severn Trent Water
- 20 Comments from the local community and stakeholders

1.42 The issues raised by this consultation process, in particular those relating to transportation, environmental issues and community infrastructure, have been addressed where appropriate through the amendments to the parameter plans and are assessed within this Supplementary ES (August 2014).

Availability of Document

1.43 A paper copy of this Supplementary ES (not including appendices) can be obtained for a cost of £100 or an electronic copy (CD Rom) for a cost of £5 from:-

- Nathaniel Lichfield & Partners, 14 Regent's Wharf, All Saints Street, London N1 9RL
- Tel: +44(0)20 7837 4477

1.44 Alternatively, the application submission and this Supplementary ES can also be viewed at:

- <http://www.charnwood.gov.uk/> or during the opening hours of CBC at the following address:-
 - Council Offices, Southfield Road, Loughborough, LE11 2TX
 - Tel: 01509 263151
- <http://www.leicester.gov.uk/> or during the opening hours of LCiC at the following address:-
 - Planning, Leicester City Council, New Walk Centre A8, Welford Place, Leicester LE1 6ZG
 - Tel: 0116 252 7000

1.45 All comments on the Supplementary ES (and planning application) should be issued to CBC or LCiC directly.

2.0 Landscape and Visual Impact

Introduction

2.1 This section addresses the key changes to the development proposals arising from the changes to the southern access road and the re-profiling and re-positioning of the lake in addition to the revised landscape proposals addressing the treatment of the land south of Melton Brook and north of Hamilton.

2.2 The other changes to the parameter plans and findings from the updated assessment work have a no or a *de minimis* effect on the LVIA and its conclusion.

2.3 Each part of this section identifies changes to the ES (December 2013) as a result of the amendments to the scheme only.

Summary of Conclusions in ES (December 2013)

2.4 During the construction phase, the following conclusions were made in the ES (December 2013):

- The construction phase will have a **short term, minor to moderate adverse, local** effect in respect of landscape effects, **short term, high adverse, local** effects for all public rights of way, a range of short term, minor to high adverse, local effects on footpaths throughout the site and a range of **short term, moderate to high adverse, local** effects on public highways.

2.5 During the operational phase, the following conclusions were made in the ES (December 2013):

- During operation there will be a range of **long term, negligible to high adverse, local** effect in respect of landscape effects (high adverse effects on Thurmaston agriculture due to loss), a range of **long term, moderate to high adverse, local** effects for all public rights of way, a range of long term, negligible to moderate adverse, local effects on footpaths throughout the site and a range of **long term, negligible to moderate adverse, local** effects on public highways.

Updated Policy Context

2.6 Figure D1: Landscape Planning Policy and Public Rights of Way which was previously included in the ES (December 2013) at Appendix D9 has been updated and is included in this Supplementary ES (August 2014) at Appendix 5.

2.7 The Leicester City Local Development Framework Core Strategy (2010) has been revised (July 2014). The draft policies identified in Chapter D of the ES (December 2013) remain unaffected.

Updated Assessment Methodology & Significance Criteria

2.8 No update is required.

Updated Baseline Conditions

2.9 No update is required.

Updated Potential Effects

During Construction

2.10 The following activities and operations are likely to arise as a result of constructing the development:

- 1 Erection of tree and hedgerow protection measures;
- 2 Necessary tree and hedgerow removal within the internal boundaries of application site to facilitate the new neighbourhoods of Northern, Central and Southern Areas;
- 3 Construction traffic, plant and machinery movements within the application site relating to ground preparation;
- 4 Increased traffic movements associated with delivery of buildings materials and removal of waste materials etc;
- 5 Construction of new internal access roads and the laying of utilities and services;
- 6 Scaffolding and building works associated with the construction of the development;
- 7 Construction of the north western and southern link roads and their associated landscape works including the re-profiling and reshaping of the lake;
- 8 Lighting of the development area and construction activities during the winter months; and
- 9 Building and landscaping works associated with the construction of the green spaces and SuDS within and around the development areas, including the re-seeding and provision of footpaths linking Hamilton to the NEoL SUE.

After Completion

2.11 The following will result in permanent impacts:

- 1 Creation of new residential neighbourhoods and the extension of the urban edge;
- 2 Creation of new local and district centres;

- 3 Creation of new neighbourhood road network and two link roads to the northwest and south of the development area;
- 4 Traffic movements into and out of the new neighbourhoods;
- 5 Presence of external lighting, including lighting to the new link roads and neighbourhood roads, district and local centres, car parks and floodlighting to the some sport provision areas;
- 6 Creation of new multi-functional and accessible spaces that link to the wider green infrastructure network and provide connected spaces to benefit the existing residents at Hamilton;
- 7 New planting along neighbourhood roads, within neighbourhood green spaces and the larger green spaces beyond the new built edge;
- 8 Change in experience and view for users of footpaths and bridleways within the new development; and
- 9 Re-profiling and reshaping of the lake to create areas of benefit to recreation, fishing and the biodiversity of the water body and margins, new terracing will add to the recreational experience of the park users and increase access around the lake with crossing points to facilitate circular walks.

2.12 **Melton Brook and Land East of Hamilton** is considered to be of **medium** sensitivity. The application site boundary runs to the south of the course of Melton Brook, land north and south of Melton Brook will be given over to managed natural and semi natural open space with new footpaths provided to facilitate access for new and existing residents and provide movement and integration between the neighbourhoods. There will be areas of mown grass to ensure opportunities are afforded for informal play. Open land and wetlands to the south will be enhanced, and there will be no impact on key landscape features. The majority of character area will be unaffected by development. During construction the magnitude of change will be **low adverse** and after completion the magnitude of change will be **medium beneficial**.

2.13 **Hamilton Park** is considered to be of **medium** sensitivity. The new southern link road will pass along the western side of Hamilton Park, and this location will limit the impact of the road on the wider park and open and undeveloped character of the area. However, following extensive discussions with the Council the re-profiling of the lake and changes to its position in the lake will create the need for extensive engineering works to complete and implement the changes. Once completed the new park will include a more accessible and varied lake edge for the benefit of informal recreation, fishing and biodiversity. The re-positioning of the lake will allow public footpaths and cycleways to be separate and set back from the road. During construction the magnitude of change will be **high adverse** after completion the magnitude of change will be **low beneficial**.

2.14 During the construction phase the magnitude of change for users of Bridleway B5 will be **high adverse** due to the construction of the road and the engineering works associated with the lake remodelling. After completion the

effect will be **medium neutral**. For the majority of the route views of the southern link road will be filtered by existing vegetation and new planting and there will be greater separation through new planting and earth works between the bridleway and the road.

Updated Mitigation Measures

- 2.15 Beyond the development edge will be a network of multi-functional green spaces that connect to the green infrastructure within the new neighbourhoods and the wider existing green infrastructure beyond the application site boundary. The provision of mixed green space including semi-natural and grassland managed for informal play. This ensures that the existing and new communities are integrated and have accessible areas for informal recreation.
- 2.16 The existing landscape to the north of Melton Brook will be enhanced through native tree, shrub and grassland planting. A number of scrapes will be created to provide areas of standing water or wetland, according to seasonal fluctuations. To the south, existing wetlands will be enhanced by new native tree and riparian planting. This will conserve and enhance Melton Brook corridor, create new wildlife habitats, and strengthen biodiversity networks. In addition new tree planting, seeding and sward management south of Melton Brook and north of Hamilton will enhance the local ecological value and provide recreational space to the benefit of residents.
- 2.17 The new southern link road will be flanked by grass verges, groups of native trees, and areas of wildflower meadow that will link to existing landscape features and will integrate the new access route into the local landscape. A separation zone will be provided between the road and footpaths/cycleways with intervening planting and grassland to provide an attractive setting for the pedestrians and cyclists. The re-profiled lake margins will create non-intervention areas to benefit the ecology of the lake and its associated vegetation whilst providing terraces to create more accessibility and areas for the public to use within the park.

Updated Residual Effects

- 2.18 Upon completion of the development the following permanent effects will occur:
- 1 New neighbourhoods consisting of approximately 4,500 new homes, primary and secondary schools, employment areas and mixed use district and local centres;
 - 2 New green infrastructure consisting of multi-functional green spaces within and beyond the built edge of the new development that link to the wider green infrastructure network and connect the new development with Hamilton through shared open space provision;
 - 3 An extension of the urban edge that has been appropriately integrated into the existing landscape;

- 4 New neighbourhoods will have an integrated SuDS that will contribute to the creation of attractive green neighbourhood streets;
- 5 New neighbourhood road networks and two link roads to the northwest and south of the development area;
- 6 The addition of new traffic movements into and out of the new neighbourhoods;
- 7 Presence of external lighting, including lighting to the new link roads and neighbourhood roads, district and local centres, car parks and floodlighting to the some sport provision areas;
- 8 New planting along neighbourhood roads, within neighbourhood green spaces and the larger green spaces beyond the new built edge;
- 9 Change in experience and view for users of footpaths and bridleways within the new development; and
- 10 Provision of a new access road which will facilitate the provision of new open space for those working in the areas of employment to the west, a re-profiled lake, including terraces and enhanced pedestrian connectivity.

2.19 **Hamilton Park** is considered to be of **medium** sensitivity. The construction phase will create a **short-term, high adverse, local effect** whilst permanent development will create a **long-term, minor beneficial, local effect**. Landscape enhancement along the new access route will ensure that the road is integrated with the local landscape and that Hamilton Park provides a variety of new and enhanced spaces for the benefit for a wide community of users.

2.20 **The relationship with the existing settlement edge of Hamilton and Hamilton Industrial Estate** is considered to be of **medium** sensitivity. The construction phase will create a **short-term, high adverse, local effect** whilst permanent development will create a **long-term, minor beneficial, local effect**. Development will introduce an uncharacteristic feature (the access road) within the local parkland landscape, beyond the existing development edge, however the enhancement to the lake and its margins, with increased accessibility and a variety of uses and strong sense of separation and screening between the park and the industrial estate will create a safe and attractive environment for the existing and new communities.

Updated Summary & Conclusions

2.21 The assessment of effects has concluded that the construction phase will result in a **short-term, minor adverse, local effect** in respect of construction activities that will occur near to the landscape resources, Barkby and Barkby Thorpe, Syston Pasture, and Melton Brook and Land East of Hamilton. A **short-term, moderate adverse, local effect** will occur for landscape resources, Woodgate Residential, Syston Agriculture, Land East of Barkby, Hamilton Park, Land South of Barkby Thorpe, Thurmaston Agriculture, existing settlement edge of Thurmaston. These construction phase impacts are unchanged from those identified within the ES (December 2013).

- 2.22 In relation to the amendments and with the extended engineering works, over a greater area for both the road and lake the short-term effects will be **high, adverse, local** for Hamilton and Hamilton Industrial Estate. This effect is slightly more significant than that identified in the ES (December 2013), however this relates solely to the extended length of construction period. This must be considered in the context of the beneficial environmental effects following the completion of construction works which are summarised below.
- 2.23 Beyond the construction phase there will be a **long-term negligible, local effect** on Syston Pasture, and a **long-term, minor adverse, local effect** on Barkby and Barkby Thorpe, Woodgate Residential and Syston Agriculture. A **long-term, moderate adverse, local effect** will occur for Land East of Barkby and Land South of Barkby Thorpe and a **long-term, high adverse, local effect** on Thurmaston Agriculture. Whilst Melton Brook and Land East of Hamilton and the existing settlement edge of Thurmaston Hamilton Park, and the settlement edge of Hamilton and Hamilton Industrial Estate a **long-term, minor beneficial, local effect** will occur. The overall residual operational effects of the development remains as described in the ES (December 2013) and are unaffected by the changes described by this Supplementary ES (August 2014). However the previously identified long-term, minor adverse, local effect in respect in respect of Hamilton Park is now a long-term, minor beneficial, local effect as a result in the changes described by the parameter plans.
- 2.24 Leicester's green wedge to the south of the application site is linked to the countryside beyond the application site through a 'green gateway' between Central and Southern development areas. This link is also connected by an existing footpath to and from Barkby Thorpe. The new southern link road runs through part of the green wedge and a Biodiversity Enhancement Site. The new road will be sympathetically integrated into the local landscape, and the addition and enhancement of landscape features, coupled with areas on the margins of the lake providing non-intervention and no public access will make a positive contribution to the biodiversity network. The road will not reduce the separation between settlements. Its route which passes along the western edge of the green wedge will not impair recreational and leisure access to the main park area. The remodelling of the lake will create greater opportunities to access the margins, see the water and use the park for informal recreation. This complies with Leicester City LDF Core Strategy Saved Policy GE03 and GE06.
- 2.25 The designed and managed natural and semi-natural green space that runs along the north of Melton Brook enhances the landscape and biodiversity value of the valley corridor and ensures that Hamilton Wetlands to the south is not encroached upon. This complies with Leicester City LDF Core Strategy Saved Policy GE09. The land between Melton Brook and Hamilton will be managed to achieve a balance if biodiversity gains and informal recreation for the new and existing communities.

3.0 Ecology & Nature Conservation

Introduction

3.1 Since submission of the ES (December 2013), there have been some scheme changes (as detailed in Section 1.0) and these have been re-assessed in terms of the potential ecological impact of the scheme. This section supplements that provided at Chapter E of the ES (December 2013).

Summary of Conclusions in ES (December 2013)

3.2 During the construction phase, the following conclusions were made in the ES (December 2013):

- During construction, **adverse** residual effects will occur due to the permanent loss of some existing habitats and species, including arable, mesotrophic grassland, brown hare and some species of breeding and wintering birds that will not adapt to the changes in land use. These losses will be balanced against gains provided by converting low value arable farmland to more diverse semi-natural greenspace, which can be managed for greater biodiversity interest. These **positive** effects will benefit hedges, scrub, semi-improved neutral grassland, woodland, ponds, bats, amphibians and invertebrates.

3.3 During the operational phase, the following conclusions were made in the ES (December 2013):

- Overall, the design of the scheme and the proposed management under the CEMP and LEMP means that the adverse and positive impacts of the development are evenly balanced at the construction phase and **positive/neutral** at the operational phase. No adverse effects will remain for any identified receptors following the completion of the development.

Updated Policy Context

3.4 No update is required.

Updated Assessment Methodology & Significance Criteria

3.5 In the previous assessment of the site for great crested newts, using the Habitat Suitability Index (HSI), it was concluded that it was highly unlikely that this species would be present within the waterbody. However, taking into account Leicester City Council's comments on the site and the revised proposals to conduct reshaping works on the pond, it was considered useful to confirm the prediction of the HSI with targeted fieldwork.

3.6

Four surveys were carried out on the pond in May-June 2014, in accordance with standard Natural England guidance, to determine the presence or absence of great crested newts and other amphibian species. Each survey consisted of an evening visit to set bottle traps and undertake torching, followed by a visit the next morning to retrieve bottle traps. Egg searching was undertaken on one of these evening/morning visits, so that three methods were used for each survey event. The dates, conditions and results of these surveys are set out in Table 3.1 below.

Table 3.1 Survey Methods and Results

Dates	Weather	Method	Results	Surveyors
8 May (pm)	13C, dry (following rain earlier), 70% cloud, F1	Set 10 bottle traps, torch	Bb tadpoles	CA/CH
9 May (am)	15C, dry, sunny, F1	Collect 10 bottle traps, egg search	-	CA/CH
14 May (pm)	17C, dry, 0% cloud, F1	Set 14 bottle traps, torch, egg search	-	CA/RH
15 May (am)	22C, dry, 0% cloud, F1	Collect 14 bottle traps	Bb tadpoles	CA/RH
22 May (pm)	13C, light rain while pacing bottles, dry during torching, 100% cloud	Set 9 bottle traps, torch	-	KC/RH
23 May (am)	Not recorded	Collect 9 bottle traps, egg search	-	KC/RH
3 June (pm)	13C, dry, 100% cloud, F1	Egg search, set 16 bottle traps, torch	Bb tadpoles	CA/MW
4 June (am)	12C, light rain, 100% cloud, F1	Collect 16 bottle traps	Bb tadpoles	CA/MW

Updated Baseline Conditions

3.7

The amphibian survey was constrained to a certain extent by the lack of marginal and aquatic vegetation within the waterbody. This limited the amount of egg searching that could be carried out during the survey – but also clearly

limits the suitability of the pond for newts, as they have no egg-laying substrate available.

- 3.8 The only amphibian species recorded during the survey was common toad, for which tadpoles were found at the margins of the waterbody. This species is unpalatable to fish and other animals and can often be found as the only amphibian species inhabiting waterbodies that hold large fish populations. No evidence was found to indicate the presence of common frog or any newt species.

Updated Potential Effects

- 3.9 Common toad is a Species of Principal Importance under the provisions of the NERC Act, but is not legally protected in the same way as great crested newt. As a result there is no legal restriction on the proposed works for lake remodelling but, without mitigation, there could be an adverse impact on this species during the construction phase. However, the lake remodelling is intended to provide a better open water and wetland habitat in the long-term (alongside transport and amenity benefits), and so will provide an overall biodiversity benefit during the operational phase.

Updated Mitigation Measures

- 3.10 To avoid any adverse impacts on common toad during the lake remodelling works, appropriate measures to avoid harm should be implemented. This should include avoidance of works during the spring breeding period (when the animals are likely to be concentrated in and around the pond), normal controls on pollution and silt creation, and an ecological watching brief during construction. These measures should be included with a Construction Environmental Management Plan.
- 3.11 The increased woodland planting, grassland management in the area between Melton Brook and Hamilton, and the improved habitat to be provided by Hamilton Park lake will provide increased biodiversity benefit to the assessment of the development.

Updated Residual Effects

- 3.12 No change is anticipated to the residual effects of the scheme.

Updated Summary & Conclusions

- 3.13 There is no change to the summary conclusion of the ecology chapter of the ES. The overall effect of development was considered to be positive for biodiversity, and the changes covered within this Addendum only increase this beneficial effect.

4.0 Water Environment

Introduction

4.1 It is proposed that a remodelling exercise necessitates moving the lake located in Hamilton Park to the north of Sandhills Avenue eastwards.

4.2 This amendment to the assessed scheme, as presented in Chapter F of the ES (December 2013) requires a re-assessment of the changes to the environment that might arise from the lake move in respect to the water environment.

4.3 The changes to the ES are presented below. All paragraph and table references refer to Chapter F of the ES (December 2013).

Summary of Conclusions in ES (December 2013)

4.4 During the construction phase, the following conclusions were made in the ES (December 2013):

- Following the implementation of mitigation measures identified for inclusion in the CEMP, it is identified that there will be **no significant** effects on the water environment during construction as a result of the development.

4.5 During the operational phase, the following conclusions were made in the ES (December 2013):

- Following the implementation of mitigation measures such as appropriate finished floor levels and an outlined surface water drainage scheme, it is identified that there will be **no significant** effects on the water environment post-completion as a result of the development.

Updated Policy Context

4.6 The NPPF Technical Guidance was replaced by the PPG on 6 March 2014. Table 5 of the NPPF Technical Guidance recommended “*national precautionary sensitivity ranges for peak rainfall intensities, peak river flows, offshore wind speeds and wave heights referred to climate change allowances*”. This was not carried forward to the National Planning Practice Guidance.

4.7 However, this information is presented as Table 2 in the Environment Agency guidance document “*Climate Change Allowances for Planners – Guidance to Support the National Planning Policy Framework, September 2013, EA ref: LIT 8496 NA/EAD/Sept 2013/V12*”.

4.8 The sensitivity ranges presented in the table are unchanged from those presented in the NPPF Technical Guidance and therefore there is no impact on any analysis presented in ES (December 2013) Chapter F.

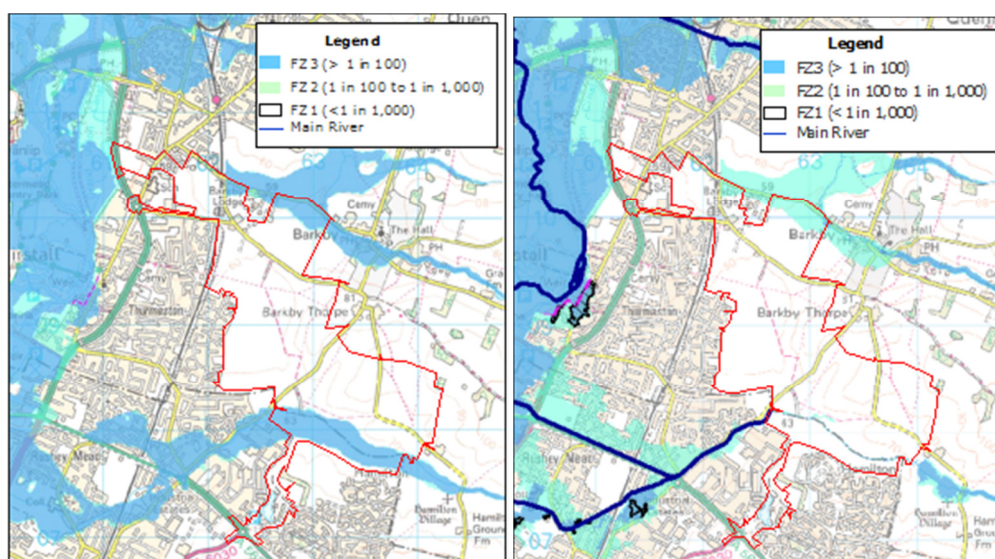
Updated Assessment Methodology & Significance Criteria

4.9 No update is required.

Updated Baseline Conditions

4.10 The ES (December 2013) stated that the Environment Agency was in the process of updating its flood map for Melton Brook and Barkby Brook in accordance with a flood map challenge. The update to the Environment Agency Flood Map for Planning (Rivers & Sea) has now been completed. The original and revised flood maps are presented in Figure 4.1.

Figure 4.1 Previous and Current Environment Agency map



(a) Original EA Flood Map

(b) Revised EA Flood Map

Updated Potential Effects

4.11 The eastward relocation of the lake introduces potential environment effects that were not considered in the ES (December 2013). For this reason, potential effects on the lake (i.e. magnitude and significance of impact, pre-mitigation) during construction and operation are as presented in Table 4.1 and 4.2 below. The significance of impact has been derived from an assessment of the magnitude of the impact used in the ES (December 2013).

Table 4.1 Impact Significance During Construction (Pre-Mitigation)

Receptor	Value	Potential Impact	Magnitude of impact	Significance of impact
Hamilton Park lake	Medium (Local / District)	Mobilised ground contaminants and/or sediments could enter the lake; Spillage of fuel, oils or hydraulic fluid from construction plant could enter	Substantial adverse	Moderate adverse

	the lake		
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Table 4.2 Impact Significance During Operation (pre-mitigation)

Receptor	Value	Potential Impact	Magnitude of impact	Significance of impact
Hamilton Park lake	Medium (Local / District)	The increase in impermeable area and in traffic volumes would increase the risk of contamination of surface runoff due to accidental spillage of contaminants and from flushing of pollutants from the impermeable surfaces; Contaminated surface runoff could enter the lake	Substantial adverse	Moderate adverse

Updated Mitigation Measures

- 4.12 The mitigation measures set out in the ES (December 2013) for the construction and operation phases remain valid.
- 4.13 The measures would be supplemented by the following construction stage mitigation measures as presented in *“North East of Leicester Sustainable Urban Extension: Southern Access and Hamilton Park Mitigation: Non-Technical Synopsis, Nathaniel Lichfield & Partners, Doc. Ref: 12152/NT/NB, June 2014”* (see Appendix 4):-
- 1 Anticipated construction period of the southern access road will be between 9 and 12 months
 - 2 The preferred alignment southern access road seeks to balance the amount of cut and fill to maximise the redistribution of material within the road corridor and minimise off site vehicle movements
 - 3 The construction compound will be located at the northern end of Hilltop Road (exact location to be confirmed) to minimise the impact on existing trees and shrubs. This will ensure that materials and any liquids will be storage away from the lake.
 - 4 Bank stability tests will be carried out to assess the type and size of equipment that can safely be used by the side of the lake for construction. All work in the area of the lake will be carried out from the west where practical and the embankment and planting protected and maintained.
 - 5 Installation of coir rolls, mats or willow spiling to enhance bank profiles.
 - 6 Environment Agency’s Pollution Prevention Guidelines will be implemented during construction to avoid and mitigate the potential for any pollution incidents occurring to the lake during construction.
 - 7 This will include such measures as the safe transfer and bunded storage of fuels, oils and hydraulic fluid, correct maintenance of plant, designated

refuelling areas, and the provision of spill kits on site. Areas around the lake will be identified as safe areas for temporary materials storage to avoid accidental spillage into the lake.

- 8 Water quality will be monitored before, during and immediately after construction.
- 9 Marginal planting of common reed or other plants.
- 10 Laying of bankside trees into the lake to open up the banks and provide nesting habitat for waterfowl.
- 11 Installation of bird nesting rafts.

Updated Residual Effects

4.14

For completeness, the post mitigation (residual) impacts on the lake during construction and operation are presented in Table 4.3 and 4.4 below.

Table 4.3 Post Mitigation (Residual) Impacts – Construction Phase

Receptor	Value	Potential Impact	Significance of impact (Pre-Mitigation)	Mitigation	Residual Significance of Impact
Hamilton Park lake	Medium (Local / District)	Water quality	Minor adverse	Operational, control and monitoring measures	Negligible

Table 4.4 Post Mitigation (Residual) Impacts – Operational Phase

Receptor	Value	Potential Impact	Significance of impact (Pre-Mitigation)	Mitigation	Residual Significance of Impact
Hamilton Park lake	Medium (Local / District)	Water quality	Minor adverse	Surface water drainage scheme; Operational maintenance	Negligible

Updated Summary & Conclusions

4.15

There is no change to the summary conclusion of the water environment chapter of the ES. The overall effect of development was considered to be negligible for the water environment, and the changes covered within this Supplementary ES (August 2014) do not affect the previous conclusions.

5.0 Transport

Introduction

5.1 This section provides an update to Chapter G of the ES (December 2013). The ES (December 2013) included an interim TA and FTP at Appendix G1 and G2 respectively, which have now been replaced at Appendix 6 and 7 of this Supplementary ES (August 2014).

5.2 It was agreed with the highway authorities (the Highways Agency, LCoC and LCiC) when producing the ES (December 2013) that the Transport Assessment should be undertaken using the County Council's traffic model ('LLITM'). However, LCoC were at the time undertaking refinement work on LLITM, and it was agreed that it would be pragmatic to undertake the TA using this refined version (Version 5) of the model (the Highways Agency also advised that they would only sign off the LLITM work using this refined model). As such, it was agreed with LCoC that an interim TA would be submitted with the ES (December 2013) and that a replacement TA would be completed when the refined LLITM was available to be used.

5.3 The replacement TA at Appendix 6 has now been completed using the refined LLITM and this Supplementary ES (August 2014) assesses the data within the replacement TA for changes in significant environmental effects to those assessed in the ES (December 2013).

Summary of Conclusions in ES (December 2013)

5.4 During the construction phase, the following conclusions were made in the ES (December 2013):

- During Construction, the increase in traffic due to construction vehicles on all the assessment criteria would be of **short term negligible adverse** significance.

5.5 During the operational phase, the following conclusions were made in the ES (December 2013):

- After completion and following mitigation measures outlined, there is considered a direct impact of **long term negligible adverse** significance on severance, pedestrian delay, pedestrian amenity and fear and intimidation. Following mitigation there it is considered for there to be a direct impact of **long term minor beneficial** significance on driver delay and accidents and safety.

5.6 The baseline conditions assessed in the ES (December 2013) remains the same, however further key junctions have been identified as listed below.

Updated Policy Context

- 5.7 The PPG web-based resource was launched by the Department for Communities and Local Government ('DCLG') on 6 March 2014 to support the NPPF and make it more accessible. Guidance on assessing transport impacts has been taken into account when producing this ES Addendum (August 2014).

Traffic Assessment

- 5.8 The methodology for assessing the traffic impact of the fully operational site has been agreed with the highways authorities and has been updated following use of the LLITM.
- 5.9 The strategy for developing the forecast development flows and their impact on the road network is based on a spreadsheet model using existing traffic survey information for the study area road network. The flows are then factored to forecast assessment years (2016, 2021, 2026 and 2031), 2031 being the final assessment year, and the earlier years used for phasing purposes. These years were nominated because they tie in with the LLITM forecast year models.
- 5.10 LLITM is then used to determine the impact of the NEoL SUE development. This process requires two runs; one to identify the impact in 2031 of all Core Strategy development excluding NEoL SUE (the Reference Case), and one to identify the forecast impact with all Core Strategy development including NEoL SUE. The difference in flows between these two runs represents the net change due to the NEoL SUE.
- 5.11 To evaluate the full benefit of all the proposed mitigation (for the purposes of the Supplementary ES), two LLITM runs have been undertaken with the full NEoL SUE in place; one with no sustainable transport mitigation and no associated highway mitigation improvements in place and one with all sustainable transport mitigation and associated highway mitigation improvements in place.
- 5.12 In each case, the difference in flows between these two runs represents the net change due to the NEoL SUE. These flows are added to the forecast background flows in the spreadsheet to determine the overall traffic forecast flows in 2031 for the study area network, firstly without, and secondly with, mitigation improvements.

Assessment Process

- 5.13 The forecast impacts are judged against the criteria outlined in Section G3.0 of the ES (December 2013). This is undertaken as a two stage process; one prior to the implementation of mitigation measures and one following the implementation of mitigation measures.

- 5.14 As part of the assessment process a judgment has been made on all the assessed roads and junctions, and these have been summarised as an average of all roads/junctions.
- 5.15 A description of each of the following environmental effects was included in the ES (December 2013):
- 1 Severance;
 - 2 Driver delay;
 - 3 Pedestrian delay;
 - 4 Pedestrian Amenity;
 - 5 Fear and intimidation; and
 - 6 Accidents and Safety.
- 5.16 An Appraisal Worksheet has been developed for each of these environmental effects, and these are shown in Appendix 8. Each worksheet assesses the sensitivity and the magnitude of change of each of the routes shown in Table 5.1, to derive an overall impact for each effect along each of the routes. The effects have then been summarised to give average overall impact for each (see Appendix 8).
- 5.17 In the case of 4 effects (Severance; Pedestrian Delay; Pedestrian Amenity and Fear and Intimidation), the assessment is based on the forecast change (in percentage terms) in traffic flow along the key routes for the 'with development' and 'without development' situations. The routes are divided into 4 categories:-
- 1 warehouse/industrial road, open space;
 - 2 office/retail area;
 - 3 residential distributor road; and
 - 4 hospital, school, residential street, high pedestrian movement.
- 5.18 For each effect a weighting is applied (subjectively), according to the sensitivity of the receptor and the magnitude of change along that route, as shown in Appendix 8. These weighted factors (sensitivity of the receptor and the magnitude of change) are then multiplied together to derive a total weighted score. A negative score reflects a reduction in traffic and hence a benefit. Likewise, a positive score reflects an increase in traffic, hence a disbenefit. Each of the benefit/disbenefit scores is given a grading (negligible, minor, moderate, major) according to magnitude of the score.
- Driver Delay**
- 5.19 In the case of driver delay, a similar process is adopted, except that, instead of flows along key links, the capacity at key junctions is used as the measure of magnitude of change. The score is derived by assessing the capacity of the key junctions without development, and then with development (no mitigation) for each peak hour. An increase in capacity is taken as a benefit and a

decrease in capacity as a disbenefit. The average of the differences for each peak hour is given a grading (negligible, minor, moderate, major) according to magnitude of the difference.

Accidents and Safety

- 5.20 In the case of accidents it is assumed that the forecast change in accidents along the key links will change on a pro rata basis with changes in traffic flow. traffic flow, with and without development. The accident statistics for the five years between 2008 and 2012 is used as the basis for the existing situation, and these are factored by the changes in flows between the with and without development situation (no mitigation). An increase in capacity is taken as a benefit and a decrease in capacity as a disbenefit. The average of the differences for each peak hour is given a grading (negligible, minor, moderate, major) according to magnitude of the difference.

Consultation

- 5.21 The Consultation leading up to the submission of the interim TA and ES (December 2013) was covered in the ES at that time. It explained that the TA required the use of the LLITM to derive the forecast traffic flows. This model is jointly owned by LCiC and LCoC and managed by LCoC.
- 5.22 The refinements of the LLITM model were signed off in February 2014, and work has progressed on the preparation of the replacement TA using LLITM (Version 5) since the end of February 2014.
- 5.23 Throughout the process there have been ongoing discussions and meetings with the planning authorities at CBC and LCiC and with all three highway authorities, plus local groups and public bodies and stakeholders.

Updated Baseline Conditions

- 5.24 An updated list of key junctions which were assessed as part of the TA (August 2014) is as follows:-
- 1 A46 / A607 Hobby Horse Roundabout
 - 2 A46 / A6 Roundabout
 - 3 A607 Melton Road / Barkby Thorpe Lane
 - 4 A607 Melton Road / Humberstone Lane
 - 5 A607 Melton Road / A563 Troon Way
 - 6 A563 Troon Way / Niklaus Road
 - 7 A563 Thurmaston Lane / Humberstone Lane
 - 8 A563 Thurmaston Lane / Victoria Rd East
 - 9 A563 Hamilton Way/ Maidenwell Avenue
 - 10 A6030 Victoria Road East / Gipsy Lane

- 11 A6030 Victoria Road East / Tailby Ave
- 12 Barkbythorpe Road / Humberstone Lane
- 13 Hamilton Lane / Keyham Lane
- 14 Sandhills Avenue / Bellflower Road
- 15 Melton Road / Barkby Lane, Syston
- 16 Barkby Thorpe Lane / Barkby Lane, Syston
- 17 Barkby Thorpe Lane / Retail Park / ASDA
- 18 Thorpe Lane / Barkby Thorpe Lane, Barkby Thorpe
- 19 Barkbythorpe Road / King Street, Barkby Thorpe
- 20 Main Street / Beeby Road /Thorpe Lane, Barkby
- 21 Main Street / Queniborough Road, Barkby
- 22 A47 Uppingham Road / Station Road

Updated Potential Effects

5.25

The percentage increase in flows due to the development proposals with no mitigation (no sustainable transport or highway mitigation improvements) are summarised in Table 5.1.

Table 5.1 Percentage impact of NEoL SUE development proposals with no mitigation

Route	Section	AM	PM
A563	Watermead Way	2%	3%
	Troon Way East of A607	1%	0%
	Troon Way East of Niklaus Road	2%	0%
	Thurmaston Lane east of Humberstone Lane	-1%	4%
	Thurmaston Lane east of Sandhills Avenue	10%	7%
	Hamilton Way east of Maidenwell Avenue	13%	6%
A607	Melton Road south of A563	-1%	0%
	Melton Road north of A563	0%	3%
	Melton Road north of Humberstone Lane	0%	2%
	Melton Road north of Barkby Thorpe Lane	-4%	-9%
	Melton Road south A46	12%	13%
A46	North of Hobby Horse	-1%	1%
	West of Hobby Horse	3%	4%
Barkby Thorpe Lane	East of A607	-1%	0%
	East of Retail Park	2%	-1%
	East of Highway Rd/Mountain Road	9%	7%
	West of Barkby Thorpe	-57%	-60%
Barkbythorpe Rd	North of Humberstone Lane	53%	-14%
	North of Hilltop Avenue	-34%	-57%
	South of Barkby Thorpe	-22%	-23%
Hamilton Lane	South of Barkby Thorpe	-28%	-33%
	South of Keyham Lane W	-56%	-58%
	Keyham Lane West	-16%	-19%

Route	Section	AM	PM
Villages	Thorpe Lane north of Barkby Thorpe	-21%	-24%
	Queniborough Road north of Barkby	-1%	-6%
	Barkby Lane west of Barkby	-10%	5%
	Beeby Road east of Barkby	43%	45%
	Queniborough Road north of Barkby Road	5%	-2%
Syston	Melton Road North of A607	-9%	-10%
	Melton Road North of Fosse Way	-6%	-11%
	Fosse Way, south of High Street	-12%	-15%
	Barkby Lane east of Syston	20%	-3%
	Melton Road North of Barkby Lane	6%	0%
	Fosse Way, north of Melton Road	-3%	1%
A6030	North of Gypsy Lane	10%	10%
	South of Gypsy Lane	5%	3%
	East of Tailby Avenue	-2%	0%
	Hastings Road South of Tailby Avenue	7%	1%

5.26 Table 5.1 indicates that, in environmental terms, the development impact on existing two-way link flows is mixed, with some roads incurring an increase in flow, and some incurring a decrease. The traffic flow decreases are largely attributable to traffic diverting from routes through Barkby Thorpe, and along Barkbythorpe Road and Barkby Thorpe Lane to the NEoL SUE development spine road and the proposed northern link to the A607 and the proposed southern link to the A563.

Forecast Impacts - No Mitigation

5.27 The IEMA guidelines suggest that the environmental impacts can become an issue where a 10% increase or more in traffic flows is forecast. The following assessed roads incur an increase of more than 10%:-

- A607 Melton Road south A46;
- Beeby Road east of Barkby and Barkby village; and
- A6030 North of Gypsy Lane.

5.28 Of these, one is a strategic route, and only Beeby Road can be defined as a sensitive road. It is anticipated that both these routes will be relieved by proposed traffic management measures.

5.29 The Worksheets are shown in Appendix 8, and findings for each effect are recorded below.

Driver Delay

5.30 Overall, without the proposed mitigation improvements, NEoL SUE is considered to have a direct impact of **long term, moderate beneficial** significance on driver delay. Some individual junctions (Barkbythorpe Road/King Street and Thorpe Lane/Barkby Thorpe Lane, both in Barkby Thorpe and Barkby Thorpe Lane near the retail park) are considered to have a major benefit.

Accidents and Safety

- 5.31 Overall, without the proposed mitigation improvements, NEoL SUE is considered to have impact of **long term, minor beneficial** significance on accidents and safety. The route along Barkbythorpe Road and through Barkby Thorpe is considered to benefit from major improvement to accidents and road safety.

Severance

- 5.32 Overall, without the proposed mitigation improvements, NEoL SUE is considered to have an overall direct impact of **long term, negligible beneficial** significance on Severance. Some individual routes (Barkbythorpe Road north of Mountain Road, Hamilton Lane south of Keyham Lane, Keyham Lane West) are considered to have a major benefit, whereas Beeby Road east of Barkby is considered to incur a major disbenefit.

Pedestrian Delay

- 5.33 The forecast increased traffic on the road network without mitigation is considered to have a direct impact of **long term, negligible beneficial** significance on Pedestrian Delay. Some individual routes (Barkbythorpe Road north of Mountain Road, Hamilton Lane south of Keyham Lane, Keyham Lane West, Fosse Way, Syston) are considered to have a major benefit, whereas Beeby Road east of Barkby and Barkbythorpe Road south of Mountain Road are considered to incur a major disbenefit.

Pedestrian Amenity

- 5.34 The forecast increased traffic on the road network without mitigation is considered to have a direct impact of **long term, minor beneficial** significance on Pedestrian Amenity. Some individual routes (Barkbythorpe Road north of Mountain Road, Hamilton Lane south of Keyham Lane) are considered to have a major benefit, whereas Beeby Road east of Barkby is considered to incur a major disbenefit.

Fear and intimidation

- 5.35 It is that NEoL SUE is considered to have a **long term, negligible beneficial** significance on Fear and Intimidation. Some individual routes (Barkbythorpe Road north of Mountain Road, Hamilton Lane south of Keyham Lane, Keyham Lane West) are considered to have a major benefit, whereas Beeby Road east of Barkby is considered to incur a major disbenefit.

Updated Mitigation Measures

During Construction

- 5.36 The proposed construction methodology remains unchanged from the ES.

After Completion

- 5.37 Inbuilt into the scheme proposals is substantial mitigation to improve the environment. These are summarised below:-
- 1 The scheme proposals provide substantial mitigation through the internalisation benefits of the integrated development, which are not considered in ad hoc speculative planning applications; and
 - 2 The proposed spine road, in conjunction with the north west link road and southern link road, will provide scope for traffic relief and other environmental benefits.

5.38 Because these proposals are integrated into the scheme, they are not assessed separately, so are not included as part of mitigation, but are, effectively, included in the 'Forecast Impacts - No Mitigation'.

Stage 1 Mitigation

5.39 The development proposals are supported by a package of substantial public transport improvements, walking/cycling improvements, the Travel Plan package and Smarter Choices (Stage 1 Mitigation). The details and benefits of these are covered in Appendix 7 (Framework Travel Plan).

Stage 2 Mitigation

5.40 Traffic management proposals have developed in conjunction with LCiC, LCoC and the HA, that should help deter existing "rat running" traffic from using the undesirable traffic routes through Scraftoft, Barkby and Barkby Thorpe (Stage 2 Mitigation). The proposed package of traffic management measures include the following options to discourage existing and future reduce the following schemes:-

- Closure of a section of Hamilton Lane, north of Keyham Lane and its diversion through the proposed new development. Traffic currently travelling between Barkby Thorpe and North Hamilton / Scraftoft will therefore be diverted via NEoL SUE;
- 20mph speed limit on the Spine Road through a section fronting the proposed District Centre of NEoL SUE;
- Introduction / extension of 20mph speed limits through Barkby and Barkby Thorpe;
- Gateway features at each end of Barkby and Barkby Thorpe villages, where not already provided, and at the northern end of Scraftoft; and
- Speed limit reductions on roads between NEoL SUE and Barkby Thorpe.

Stage 3 Mitigation

5.41 Finally an assessment has been undertaken to evaluate the extent of improvements where they are required (Stage 3 Mitigation). Several junctions

are proposed for consideration for improvement. A summary of the possible mitigation proposals at the key junctions is shown in Table 5.2.

Table 5.2 Proposed Development - Mitigation Proposals.

Junction	Proposed Mitigation
A563 Thurmaston Lane / Victoria Road East	Relatively minor improvement to existing signalised roundabout proposed which is predicted to mitigate impact. Will also help to solve cyclist safety issues on Sandhills Avenue.
A563 Thurmaston Lane / Humberstone Lane	No additional improvements justified on capacity grounds. However, there are cyclist safety issues. Improvements could be justified in lieu of other junctions.
Barkbythorpe Rd / Humberstone Lane	No additional improvements justified on capacity grounds. Furthermore capacity improvements could encourage increased flows along Barkbythorpe Road. However, some form of improvement could be justified in lieu of other junction improvements.
A563 Hamilton Way/ Maidenwell Avenue	Other developments also impact on this junction (Tesco / East Hamilton). Further discussion with LCiC on the most appropriate way forward.
A607 Melton Road / Humberstone Lane	Although junction is congested, impact is considered to be insubstantial
Gipsy Lane / Victoria Rd East	Only minor additional improvements justified as part of NEoL.
Victoria Road East / Tailby Avenue.	Only minor additional improvements justified as part of NEoL
A46 / A607 Hobby Horse Roundabout	Relatively minor impact at junction. Further discussion with HA and LCoC on the most appropriate way forward.
New Northern Link – junction on Melton Road	New signalised junction
New Northern Link – junction on A607	New signalised roundabout junction

- 5.42 It should be added that, with the exception of the A563 Thurmaston Lane/Victoria Road East junction, it is not proposed that all improvements are undertaken, but that these are discussed and agreed with the highway authorities to determine the most appropriate overall package for the site.

Updated Residual Effects

- 5.43 All the schemes and measures referred to above are forecast to reduce traffic (Stage 1 Mitigation), provide traffic relief to sections of the existing road network (Stage 2 Mitigation) or improve road capacity in congested areas (Stage 3 Mitigation).
- 5.44 The mitigation benefits of the Stage 1 and Stage 2 Mitigation have been assessed using LLITM, as explained in the replacement TA (Appendix 6). The benefits of Stage 3 Mitigation (highway improvements) have been assessed separately through individual junction assessments.

- 5.45 The Appraisal Worksheet at Appendix 8 uses the same process as the 'no mitigation' case, but with updated data to represent the 'with mitigation' situation. The changes in flow data are from the combined effects of Stage 1 and Stage 2 Mitigation. The changes in junction capacity are from the combined effects of Stage 1, 2 and 3 Mitigation.

During Construction

- 5.46 As stated in paragraph G5.6 the increase in traffic due to construction vehicles on the assessment criteria would be of **short term, negligible adverse** significance. A Construction Environmental Management Plan will be in place to minimise the effects of construction vehicles, as described in the ES.

After Completion

- 5.47 The percentage increase in flows due to the development proposals 'with mitigation' (Stage 1, 2 and 3 - sustainable transport mitigation and associated highway mitigation improvements) in place are summarised in Table 5.3.

Table 5.3 Percentage impact of NEoL SUE development proposals with mitigation

Route	Section	AM	PM
A563	Watermead Way	2%	2%
	Tron Way East of A607	1%	0%
	Tron Way East of Niklaus Road	1%	0%
	Thurmaston Lane east of Humberstone Lane	1%	7%
	Thurmaston Lane east of Sandhills Avenue	4%	3%
	Hamilton Way east of Maidenwell Avenue	6%	3%
A607	Melton Road south of A563	0%	0%
	Melton Road north of A563	0%	2%
	Melton Road north of Humberstone Lane	0%	1%
	Melton Road north of Barkby Thorpe Lane	-9%	-12%
	Melton Road south A46	8%	7%
A46	North of Hobby Horse	-1%	0%
	West of Hobby Horse	2%	2%
Barkby Thorpe Lane	East of A607	-14%	-12%
	East of Retail Park	-19%	-22%
	West of Barkby Thorpe	-77%	-95%
Barkbythorpe Rd	North of Humberstone Lane	2%	-40%
	North of Mountain Road	-44%	-55%
	South of Barkby Thorpe	-33%	-32%
Hamilton Lane	North of Keyham Lane W	-25%	-36%
	South of Keyham Lane W	-7%	-12%
	Keyham Lane West	-4%	-2%
Villages	Thorpe Lane north of Barkby Thorpe	-3%	-5%
	Queniborough Road north of Barkby	-3%	-3%
	Barkby Lane west of Barkby	17%	31%
	Beeby Road east of Barkby	-30%	-32%
	Queniborough Road north of Barkby Road	4%	-6%
Syston	Melton Road North of A 607	-6%	-6%

Route	Section	AM	PM
	Melton Road North of Fosse Way	3%	-3%
	Fosse Way, south of High Street	-2%	-5%
	Barkby Lane east of Syston	-3%	-3%
	Melton Road North of Barkby Lane	4%	-5%
	Fosse Way	-2%	7%
A6030	North of Gypsy Lane	10%	7%
	South of Gypsy Lane	6%	3%
	East of Tailby Avenue	-1%	0%
	Hastings Road South of Tailby Avenue	8%	3%

Severance

- 5.48 Overall, with the proposed mitigation improvements, NEoL SUE is considered to have a direct impact of **long term, minor beneficial** significance on severance. Some individual routes (Barkbythorpe Road north of Mountain Road, Beeby Road east of Barkby) are considered to have a major benefit, whereas Barkby Lane west of Barkby is considered to incur a major disbenefit. Further mitigation to reduce the traffic impact along this route will be examined as the development proceeds.

Pedestrian Delay

- 5.49 Overall, with the proposed mitigation improvements, NEoL SUE is considered to still have a direct impact of **long term, minor beneficial** significance on Pedestrian Delay. Some individual routes (Barkby Thorpe Lane near the retail site, Barkbythorpe Road north of Mountain Road, Beeby Road east of Barkby) are considered to have a major benefit, whereas Barkby Lane west of Barkby is considered to incur a major disbenefit. Further mitigation to reduce the traffic impact along Barkby Lane will be examined as the development proceeds.

Pedestrian Amenity

- 5.50 Overall, with the proposed mitigation improvements, NEoL SUE is considered to still have a direct impact of **long term, moderate beneficial** significance on pedestrian amenity. Two routes (Barkbythorpe Road north of Mountain Road and Beeby Road east of Barkby) are considered to have a major benefit.

Fear and Intimidation

- 5.51 Overall, with the proposed mitigation improvements, NEoL SUE is considered to still have a direct impact of **long term, minor beneficial** significance on fear and intimidation. Two routes (Barkbythorpe Road north of Mountain Road and Beeby Road east of Barkby) are considered to have a major benefit. whereas Barkby Lane west of Barkby is considered to incur a major disbenefit. Further mitigation to reduce the traffic impact along Barkby Lane will be examined as the development proceeds.

Driver Delay

- 5.52 Overall, with the proposed mitigation improvements, NEoL SUE is considered to have a direct impact of **long term, moderate beneficial** significance on driver delay. Some individual junctions (Barkbythorpe Road / King Street, and Thorpe Lane / Barkby Thorpe Lane, both in Barkby Thorpe and the Barkby Lane roundabout to the retail store) are considered to have a major benefit.

Accidents and Safety

- 5.53 Overall, with the proposed mitigation improvements, NEoL SUE is considered to continue to have an impact of **long term, minor beneficial** significance on accidents and safety. The route along Barkbythorpe Road and through Barkby Thorpe is considered to benefit from major improvement to accidents and road safety.

Updated Summary & Conclusions

- 5.54 The methodology and process takes into account the cumulative effects of developments that are currently under construction and other committed developments, including those in the current Core Strategy proposals.
- 5.55 During construction, the increase in traffic due to construction vehicles on all the assessment criteria would be of **short term, negligible adverse** significance, and any effects will be minimised by the implementation of the Construction Environment Management Plan. This is unchanged in relation to that described in the ES (December 2013).
- 5.56 After completion, the proposed NEoL SUE is considered to have the following long term, residual impacts (with mitigation):-
- minor beneficial significance on severance;
 - minor beneficial significance on pedestrian delay;
 - moderate beneficial significance on pedestrian amenity;
 - minor beneficial significance on fear and intimidation;
 - moderate beneficial significance on driver delay; and
 - minor beneficial significance on accidents and safety.
- 5.57 Thus it is considered that, on the key part of the road network assessed, the development is considered to have an overall impact of **long term, negligible beneficial** significance without mitigation, and a **long term, minor beneficial** significance with mitigation.
- 5.58 Therefore, the effects of the changes described within this Supplementary ES (August 2014) are to further enhance the beneficial effects of the scheme in relation to driver delay from minor to moderate beneficial significance. In addition, the ES (December 2013) described the direct effects on severance, pedestrian delay, pedestrian amenity and fear and intimidation as long term negligible, adverse effects; the current form of the parameter plans have

changed this effect to minor, beneficial significance. The effect on accident and safety is unchanged.

6.0 Air Quality

Introduction

6.1 During the construction phase of the proposed development residual impacts were anticipated to be negligible. Intermediate, adverse impacts were predicted at receptor locations within 10m of the development site boundary.

6.2 During the operational phase of the proposed development residual impacts were anticipated to range between slight adverse to negligible. Residual impacts were not predicted to be significant.

6.3 The above conclusions were drawn from the ES (December 2013), however since its publication there have been changes to the scheme of works. As well as scheme changes, a replacement TA has been produced (as described in Section 5.0 of this Supplementary ES (August 2014)). Following a review of the replacement TA, the changes have not been considered to be significant. Therefore, air quality assessment in the ES (December 2013), utilising the original transport data, remains applicable.

6.4 Updated air quality policy and assessment methodology has been discussed within this section of the Supplementary ES (August 2014).

Summary of Conclusions in ES (December 2013)

6.5 During the construction phase, the following conclusions were made in the ES (December 2013):

- Airborne dust and particulate emissions and generation of exhaust emissions by construction plant and road traffic will be mitigated against as identified in Chapter H to ensure there will be a **negligible** impact on the environment during construction. **Intermediate, adverse** impacts are predicted at receptor locations within 10m of the development site boundary.

6.6 During the operational phase, the following conclusions were made in the ES (December 2013):

- Mitigation measures are proposed to ensure that there will be a **slight adverse to negligible** impact on the air quality environment during the operational phase of the development.

Updated Policy Context

6.7 The following document has been published since the ES (December 2013):

- Planning Practice Guidance: Air Quality, March 2014.

National Policy

- 6.8 The NPPF broadly retains the principles of PPS 23: Planning and Pollution Control and states that:-
- ‘Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.’*
- 6.9 The PPG web-based resource was launched by the Department for Communities and Local Government (‘DCLG’) on 6 March 2014 to support the NPPF and make it more accessible. A review of PPG: Air Quality identified the following guidance:-
- “When deciding whether air quality is relevant to a planning application, local planning authorities should consider whether the development would:*
- Significantly affect traffic in the immediate vicinity of the proposed development site or further afield. This could be by generating or increasing traffic congestion; significantly changing traffic volumes, vehicle speed or both; or significantly altering the traffic composition on local roads. Other matters to consider include whether the proposal involves the development of a bus station, coach or lorry park; adds to turnover in a large car park; or result in construction sites that would generate large Heavy Goods Vehicle flows over a period of a year or more.*
- Introduce new point sources of air pollution. This could include furnaces which require prior notification to local authorities; or extraction systems (including chimneys) which require approval under pollution control legislation or biomass boilers or biomass-fuelled CHP plant; centralised boilers or CHP plant burning other fuels within or close to an air quality management area or introduce relevant combustion within a Smoke Control Area.*
- Expose people to existing sources of air pollutants. This could be by building new homes, workplaces or other development in places with poor air quality.*
- Give rise to potentially significant impact (such as dust) during construction for nearby sensitive locations.”*

Updated Assessment Methodology & Significance Criteria

- 6.10 Since the ES (December 2013) was completed, the Emissions Factors Toolkit (‘EFT’) published by Defra has been updated from version 5.2 to 6.0. EFT version 6.0 calculates lower pollutant emissions than version 5.2 as used within the ES (December 2013). As such, the existing modelling from December 2013 remains applicable, as it represents a worst case assessment.

Updated Baseline Conditions

- 6.11 Background concentrations as used within the ES (December 2013) are utilised from 2010. In June 2014 Defra issued revised 2011 based background maps for NO_x, NO₂, PM₁₀ and PM_{2.5} which incorporate updates to the input data used for modelling. However, the 2011 background pollutant data is generally lower than during 2010. As such, the existing modelling from December 2013 remains applicable, as it represents a worst case assessment.

Updated Potential Effects

- 6.12 Following a review of the transport data produced in the TA (August 2014), no further potential effects have been identified.

Updated Mitigation Measures

- 6.13 No update is required.

Updated Residual Effects

- 6.14 No update is required.

Updated Summary & Conclusions

- 6.15 There is no change to the summary conclusion of the air quality chapter of the ES. The overall effect of development was considered to be negligible for air quality, and the changes covered within this Supplementary ES (August 2014) only do not affect the previous conclusions.

7.0 Noise and Vibration

Introduction

7.1 The following conclusions of the ES (December 2013) report were noted:-

“During the construction phases, it is anticipated that through appropriate mitigation (suitable design practices adhered to by the Contractor) likely significant noise effects can be minimised so that residual significant effects would not arise.

For generated road traffic noise, the predicted impact magnitude ranges from negligible to large adverse at receptors which range from low (tranquillity) to high (residential and educational receptors) sensitivity. The significance of effects will range from neutral to substantial - moderate adverse. Effects which are significant in EIA terms and adverse are not generally predicted. However, for a very small number of receptors within proximity to the proposed southern and northern link roads, significant adverse effects are predicted.

No significant vibration impacts are predicted during the construction or operational phases.”

7.2 Since the ES (December 2013) was completed, there have been changes to the scheme of works. As such, a replacement TA and parameter plans have been produced. Following a review of the replacement TA and plans, the changes have been predicted but are not considered to be significant.

7.3 Updated noise policy and assessment methodology has also been discussed within this Supplementary ES (August 2014).

Summary of Conclusions in ES (December 2013)

7.4 During the construction phase, the following conclusions were made in the ES (December 2013):

- Mitigation identified for inclusion in the CEMP will ensure that there are **no significant** noise effects on the environment.

7.5 During the operational phase, the following conclusions were made in the ES (December 2013):

- Operational phase noise will be generated by road traffic noise and proposed associated commercial and industrial premises. Through the adoption of mitigation measures identified and expected detailed design and consent conditions, there will likely be **no significant** noise effects on the environment during operation.

Updated Policy Context

7.6 The following documents have been published since the ES was submitted in December 2013:

- Planning Practice Guidance: Noise, March 2014.

National Policy

7.7 The PPG web-based resource was launched by DCLG on 6 March 2014 to support the NPPF and make it more accessible. The overall aim of the guidance, tying in with the principles of the NPPF and the Explanatory Note of the Noise Policy Statement for England, is to “*identify whether the overall effect of noise exposure is, or would be, above or below the significant observed adverse effect level and the lowest observed adverse effect level for the given situation*”.

7.8 A summary of the effects of noise exposure associated with both noise generating developments and noise sensitive developments is presented within the PPG and repeated below in Table 7.1.

Table 7.1 NPPG Noise Exposure Hierarchy

Perception	Examples of Outcomes	Increasing Effect Level	Action
Not noticeable	No Effect	No Observed Effect	No Specific Measures Required
Noticeable and not intrusive	Noise can be heard, but does not cause any change in behaviour or attitude. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No Specific Measures Required
Lowest Observed Adverse Effect Level ('LOAEL')			
Noticeable and intrusive	Noise can be heard and causes small changes in behaviour and/or attitude, e.g. turning up volume of television; speaking more loudly; closing windows for some of the time because of the noise. Potential for non-awakening sleep disturbance. Affects the acoustic character of the area such that there is a perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level ('SOAEL')			
Noticeable and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. having to keep windows closed most of the time, avoiding certain activities during periods of intrusion. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep.	Significant Observed Adverse Effect	Avoid

Perception	Examples of Outcomes	Increasing Effect Level	Action
	Quality of life diminished due to change in acoustic character of the area.		
Noticeable and very disruptive	Extensive and regular changes in behaviour and/or an inability to mitigate effect of noise leading to psychological stress or physiological effects, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Observed Adverse Effect	Prevent

- 7.9 The NPPF, NSPE and NPPG do not, however, present absolute noise level criteria which define SOAEL, LOAEL and 'no observed adverse effect level' ('NOAEL') which is applicable to all sources of noise in all situations. Therefore, within the context of the propose development, national planning policy and appropriate guidance documents, Table 7.1 presents the noise level criteria used as a basis of this assessment.
- 7.10 The NPPG also states that neither the NPSE nor the NPPF (which reflects the Noise Policy Statement) expect noise to be considered in isolation, separately from the economic, social and other environmental dimensions of the proposed development.
- 7.11 In addition, BS 5228-1:2009 has been amended as of 2014. However, the amendments do not affect the assessment methodology used in the ES (December 2013).

Updated Assessment Methodology & Significance Criteria

- 7.12 Since the ES (December 2013) was issued, the BS 8233:2014 Sound and Noise Reduction for Buildings – Code of Practice has been updated in 2014. However, the assessment criteria used within the December 2013 assessment remains applicable.

Updated Baseline Conditions

- 7.13 Baseline noise levels are not predicted to have significantly changed since the survey undertaken in 2013.
- 7.14 Baseline 2014 traffic flow data was provided and included within the assessment, superseding the 2011 data used in the December 2013 report. The updated traffic flows resulted in changes to Table I5.11 in the December 2013 noise assessment. An updated table is contained below.

Updated Potential Effects

7.15

As a result of the updated traffic flows, noise levels at surrounding sensitive receptors were re-modelled. The results are shown in Tables 7.2 and 7.3 below.

Table 7.2 Revised Contributions to Road Traffic Noise Levels as a result of the Proposed Development (compared with Do Minimum Scenario)

Reference	Location	Do Min (dB L _{A10} ,18hours)	Do Something (dB L _{A10} ,18hours)	Revised Change in noise levels (dB(A))
10 Simpson Close	R1	56.6	56.5	-0.1
Roundhill Community College	R2	56.0	61.1	5.1
14 Barkby Lane	R3	50.4	53.8	3.4
947 Fosse Way	R5	66.7	66.0	-0.7
96 Clover Way	R4	63.2	63.3	0.1
933 Fosse Way	R6	68.7	67.0	-1.7
Ingle Nook - Barkby Thorpe Lane	R7	63.4	61.8	-1.6
Ingle Nook - Rear	R8	47.2	48.1	0.9
74 Barkby Thorpe Lane	R9	67.1	65.7	-1.4
61 Barkby Thorpe Lane	R10	59.4	56.6	-2.8
82 Barkby Thorpe Lane	R11	70.7	64.5	-6.2
81 Barkby Thorpe Lane	R12	54.6	55.3	0.7
66 Barkby Lane	R13	52.2	55.2	3.0
135 Barkby Lane	R14	60.2	61.1	0.9
15 Queen Street	R15	70.3	68.6	-1.7
30 Queen Street	R16	66	64.3	-1.7
Hilltop Farm Kings Street	R17	68.8	67.2	-1.6
New Residential Development off Barkby Thorpe Lane	R18	64.2	58.2	-6.0
2 Barkbythorpe Rd	R19	65.2	62.1	-3.1
1 Cheney Road	R20	62.3	61.3	-1.0
13 Bellflower Road	R21	64.6	64.7	0.1
2 Bellflower Road	R22	62.4	65.1	2.7
Humberstone Farm	R23	54.5	56.0	1.5

Reference	Location	Do Min (dB LA10,18hours)	Do Something (dB LA10,18hours)	Revised Change in noise levels (dB(A))
3 Larkspur Close	R24	64.2	66.7	2.5
73 Moulton Rd	R25	47.6	51.9	4.3
2 Picton Close	R26	45.3	44.9	-0.4
Hamilton Grounds Farm	R27	67.4	68.0	0.6
Bellflower Road	R28	59.9	62.8	2.9

7.16 As a result of these updated traffic flows, the significance of effects at all receptors remains unchanged to that described in the ES (December 2013).

7.17 An updated assessment has been undertaken with respect to the change in road traffic noise level in the long term. A comparison of the 2014 base flows and the 2031 DS flows is presented in Table 7.3 below.

Table 7.3 Revised Contributions to Road Traffic Noise Levels as a result of the Proposed Development (compared with Baseline Scenario)

Reference	Location	Baseline (dB LA10,18hours)	Do Something (dB LA10,18hours)	Change in noise level (dB(A))
10 Simpson Close	R1	54.1	56.5	2.4
Roundhill Community College	R2	54.7	61.1	6.4
14 Barkby Lane	R3	48.8	53.8	5.0
947 Fosse Way	R5	65.0	66.0	1.0
96 Clover Way	R4	62.4	63.3	0.9
933 Fosse Way	R6	66	67.0	1.0
Ingle Nook - Barkby Thorpe Lane	R7	62.9	61.8	-1.1
Ingle Nook - Rear	R8	45.7	48.1	2.4
74 Barkby Thorpe Lane	R9	66.6	65.7	-0.9
61 Barkby Thorpe Lane	R10	59.3	56.6	-2.7
82 Barkby Thorpe Lane	R11	70.7	64.5	-6.2
81 Barkby Thorpe Lane	R12	54.6	55.3	0.7
66 Barkby Lane	R13	51.8	55.2	3.4
135 Barkby Lane	R14	59.3	61.1	1.8
15 Queen Street	R15	70.3	68.6	-1.7
30 Queen Street	R16	66	64.3	-1.7
Hilltop Farm Kings Street	R17	68.7	67.2	-1.5
New Residential	R18	63.9	58.2	-5.7

Reference	Location	Baseline (dB LA10,18hours)	Do Something (dB LA10,18hours)	Change in noise level (dB(A))
Development off Barkby Thorpe Lane				
2 Barkbythorpe Rd	R19	65.2	62.1	-3.1
1 Cheney Road	R20	62.4	61.3	-1.1
13 Bellflower Road	R21	63.7	64.7	1.0
2 Bellflower Road	R22	61.7	65.1	3.4
Humberstone Farm	R23	53.8	56.0	2.2
3 Larkspur Close	R24	63.6	66.7	3.1
73 Moulton Rd	R25	47.1	51.9	4.8
2 Picton Close	R26	44.7	44.9	0.2
Hamilton Grounds Farm	R27	66.5	68.0	1.5
Bellflower Road	R28	59.2	62.8	3.6

7.18 As a result of the updated traffic flows and parameter plans, the significance of effects at all receptors remains unchanged to that described in the ES (December 2013).

Updated Mitigation Measures

7.19 No update is required.

Updated Residual Effects

7.20 No update is required.

Updated Summary & Conclusions

7.21 There is no change to the summary conclusion of the noise chapter of the ES. The overall effect of development was considered to be negligible for noise, and the changes covered within this Supplementary ES (August 2014) only do not affect the previous conclusions.

8.0 **Socio-Economics**

Introduction

8.1 This section describes any changes to the socio-economic considerations of the scheme in the ES (December 2013) that would be materially significant to the assessment of the socio-economic impacts. This takes account of consultation responses received on the potential impact of the development on local facilities and amenities (e.g. open spaces, policing, recreation, health and education).

8.2 Where no material changes are identified for a section in the chapter, these sections are indicated as “no update is required”. These sections of the original assessment are considered to remain relevant and up-to-date. Where some new considerations have been identified, these are outlined and assessed in this note as to whether they require amendments to the potential socio-economic impact of the proposed development scheme.

Summary of Conclusions in ES (December 2013)

8.3 During the construction phase, the following conclusions were made in the ES (December 2013):

- After implementation of any local job recruitment and training measures outlined above, the residual impact on the local labour market would be **moderate positive**.

8.4 During the operational phase, the following conclusions were made in the ES (December 2013):

- Impacts on health provision in the local area would be **negligible** for primary health care, but would remain **moderate** for secondary health provision over the baseline due to the constrained existing hospital facilities in the Leicester/Charnwood area, equating to an overall minor impact. The scheme will provide for community facilities, which will meet needs arising from the development, subject to suitable operators coming forward. Following this provision any residual impacts will be **neutral**.

Updated Policy Context

8.5 No update is required.

Updated Assessment Methodology & Significance Criteria

8.6 No update is required.

Updated Baseline Conditions

- 8.7 The key socio-economic indicators for the main impact area have generally improved since the baseline conditions were last reviewed in December 2013, with slightly lower claimant unemployment levels and higher economic activity rates being the main notable changes. The key employment growth sectors remain largely the same, although job growth between 2004 and 2014 was slightly higher across the local economy than that experienced between 2002 and 2012 (i.e. despite job growth being slightly lower in Charnwood). While these indicators point towards a local economy that has improved over recent periods, changes since the latest baseline review are not considered to be materially significant to the assessment.

Updated Potential Effects

Impact on Education

- 8.8 Consultation feedback on the impact of the proposed scheme on local education providers has been undertaken since the ES (December 2013). The feedback gained from Syston Town Council, and Barkby and Barkby Parish Council, suggests some concern exists over the proposed development delivering a new secondary school (i.e. regarded as essential to meet increased demand). As the scheme has reserved space within the site to accommodate a new secondary school (i.e. if evidence supports this need), and the County Council agrees this is an option, it is considered that no material change to the assessment of the impacts on education has occurred, with these impacts still considered to be neutral and negligible in nature.

Impact on Health Facilities

- 8.9 Consultation feedback on the impact of the proposed scheme on the provision of health facilities has been undertaken since the ES (December 2013). Feedback gained from NHS England reaffirms the original assessment that the proposed development scheme will only have a minor adverse impact on the provision of health facilities in the local area, with no material changes to the impact assessment having been identified. It is assumed that where extra demand associated with the proposed scheme cannot be accommodated within existing practices; there are opportunities to include mitigation facilities within the SUE.

Impact on Open Space and Recreation Provision

- 8.10 Consultation feedback on the impact of the scheme on open space and recreation provision has been undertaken since the ES (December 2013). The feedback gained from Natural England indicated no objections in regards to the impact on open spaces, while feedback from Sport England did indicate some concern over losses of playing fields at Roundhill Community College from construction of the new access road. However Sport England does advise they are prepared to lift their objection if more detail is submitted regarding the

replacement of these pitches, alongside greater detail regarding the provision of recreational facilities and space within the site. For this reason, no material changes are considered to have occurred to the assessment of the impact on open space and recreation, meaning the impacts remains natural and negligible in nature.

Impact on Community Facilities

- 8.11 Consultation feedback on the impact of the proposed scheme on community facilities has been undertaken since the original ES (December 2013). Specifically comments on the below subjects have been addressed.

Policing

- 8.12 Feedback from Leicestershire Police identifies that planning contributions to the policing service at the site would be required to ensure that there is sufficient capacity and resources to provide an effective service at the site. The ES (December 2013) considers the requirements at the site and identifies that, where applicable, any impacts would be mitigated through an appropriate level of developer contributions. No further evidence has been identified since the submission of the ES (December 2013) that would alter this conclusion and therefore there is no material change to the findings of the ES (December 2013).

Civic Amenity

- 8.13 The County Council provided feedback on the anticipated level of civic amenity contribution to be provided as part of this scheme. As with policing, the feedback indicates that no material change to the assessment of impacts on civic amenity in the ES (December 2013) has occurred and subsequently there is no material change to the findings.

Local Community Facilities

- 8.14 Feedback from Syston Town Council, Barkby and Barkby Parish Council, and the County Council, indicate no material change to the assessment of the impacts on local community facilities, including libraries, in the ES (December 2013), with these impacts considered to be adverse and minor by nature. This assumes that no provision of local community facilities could be supported within the development, which could help mitigate impacts.

Impact on Retail Provision

- 8.15 No update is required.

Summary

- 8.16 No update is required.

Updated Mitigation Measures

8.17 No update is required.

Updated Residual Effects

8.18 No update is required.

Updated Summary & Conclusions

8.19 No update is required.

9.0 Cumulative Assessment

- 9.1 As identified in the individual technical sections within this Supplementary ES (August 2014), significant environmental effects identified in the ES (December 2013) are largely unchanged as a result of the scheme changes.
- 9.2 The ES (December 2013) included an assessment of the potential for cumulative effects if the NEoL SUE was considered alongside other schemes and proposals in the surrounding area. As stated at paragraph M4.4, best practice dictates that cumulative assessments of this nature should have regard to those schemes which are 'reasonably foreseeable' (i.e. usually those under construction or with planning permission).
- 9.3 With this in mind, this section provides an update on the status of the schemes identified in Section M4.0 of the ES (December 2013) and identifies further developments since the submission of the ES (December 2013) potentially requiring consideration as part of the cumulative assessment.

Table 9.1 Update of Table M4.1 in ES (December 2013) - Schemes identified for consideration as part of a cumulative assessment

Ref	Location	Description of Development	Current Status
1	Land east of Hamilton, north of Keyham Lane, Leicester	Outline application for residential development of up to 416 dwellings with access from Maidenwell Avenue and Bryony Road (ref. 20120779). Reserved matters application seeking permission for details of layout, scale, appearance and landscaping of residential development of up to 416 dwellings with access from Maidenwell Avenue and Bryony Road (ref. 20130582).	Outline permission has been granted (January 2013), reserved matters application (submitted April 2013) received conditional approval in September 2013 (details to discharge conditions have been submitted).
2	Land at Hamilton Lane, Heritage Way	Outline application for the erection of up to 320 dwellings, access arrangements from Heritage Way and Bryony Road, open space, landscaping and associated infrastructure (ref. P/11/1785/2).	Outline permission has been granted (December 2012). Application conditionally approved in September 2013 in to vary and remove conditions on the planning permission (ref. P/13/0209/2).
3	Watermede Business Park, Wanlip Road, Syston	Outline application for Business Park, comprising offices, research and development/light industry; erection of hotel	Outline planning application submitted in January 2012 and currently under consideration.

Ref	Location	Description of Development	Current Status
		and leisure facilities, café/pub/restaurant, playing fields/sports pitches, changing facilities and clubroom, canal footbridge and footpath diversion, alterations to car park and toilet facilities and associated landscaping (NB amended office floorspace to a maximum of 26,950 and a minimum of 13,700 square metres) (ref. P/12/0003/2).	
4	Barkby Road, Syston, Leicestershire	Outline application for the erection of up to 149 dwellings with associated landscaping, public open space, infrastructure and access (ref. P/13/0925/2).	Outline planning permission granted in January 2014.
5	Queniborough Lodge, Melton Road, Queniborough	Outline application (all matters reserved save means of access) for construction of circa 125 dwellings and associated development (ref. P/13/1696/2).	Outline planning application submitted in August 2013 and currently under determination. Application has received resolution to grant subject to a legal agreement.
6	Land off Barkby Thorpe Lane, Thurmaston, Leicestershire	Outline application for the erection of up to 150 dwellings, with associated vehicular and pedestrian access (ref. P/13/1716/2).	Outline planning application submitted in August 2013 and currently under determination.

9.4 In the context of the Cumulative Assessment provided within Section M4.0 of the ES (December 2013), the status of the schemes identified above does not give rise to a need to re-examine the conclusions reached as part of this Supplementary ES (August 2014). In addition, the scheme changes described in the Supplementary ES do not give rise to the potential for any additional cumulative effects not identified within Section M4.0 of the ES (December 2013). The conclusions of that assessment therefore remain valid.

9.5 The following are schemes which have been identified since the ES (December 2013) was submitted.

Table 9.2 Schemes to be reviewed by cumulative assessment since ES (December 2013)

Ref	Location	Description of Development	Current Status
1	Land off Barkby Road, Queniborough, Leicestershire	Outline application for the erection of up to 165 dwellings including access and associated works (ref. P/14/0708/2)	Outline planning application was submitted to the Council in May 2014 and is currently under consideration.

Ref	Location	Description of Development	Current Status
2	Land off Barkby Road, Syston, Leicestershire	Reserved matters application for the erection of 148 dwellings and associated works (outline application ref. P/13/0925/2) (ref. P/14/0816/2)	Reserved matters planning application was submitted to the Council in May 2014 and is currently under consideration.
3	Land at Hamilton Lane, Hamilton, Leicestershire	Reserved matters application for the erection of 320 dwellings and associated works (ref. P/14/0603/2)	Reserved matters application received conditional approval in August 2014.
4	Land off Millstone Lane, Queniborough, Leicestershire	Full planning application for the erection of 101 dwellings with associated works and creation of cemetery (ref. P/14/0393/2).	Full planning application received resolution to grant planning permission from the CBC Plans Committee in August 2014.

1 Land off Barkby Road, Queniborough, Leicestershire

- 9.6 An outline planning application is currently under consideration for up to 165 dwellings on land off Barkby Road in Queniborough to the north of the NEoL SUE site. The application does not identify a build period for the scheme; however the Transport Assessment ('TA (March 2014)') submitted with the application assumes a peak traffic growth level of 2019. Given these timescales it is anticipated that the construction period for this development will be concurrent to the NEoL SUE development.
- 9.7 The TA (March 2014) and associated Framework Travel Plan conclude that there are no material traffic impacts associated with the proposal. The TA (March 2014) identifies that the Rearsby Road/Queniborough Road/Barkby Road/Syston Road junction to the north of the site is operating over capacity, however concludes that the impact of the development is small and that the remainder of the network operates within capacity. Overall, it concludes that there are no material transport issues associated with the application.
- 9.8 The Design and Access Statement submitted with the application does not identify any significant adverse effects to visual receptors as the majority of views are constrained by a combination of existing settlement edge, vegetation and undulating landform. Given the location of the site and the existing settlement edge of Syston and Barkby, it is not anticipated that views related to the NEoL SUE will be comprised. Soft landscaping proposals included in both developments will further ensure that any cumulative effects will be minimised and no further mitigation is considered.
- 9.9 Given the distance from the NEoL SUE scheme, it is considered that the potential for significant cumulative effects on the scheme would be negligible.

2 Land off Barkby Road, Syston, Leicestershire

- 9.10 This is a reserved matters application brought forward pursuant to an outline permission. The outline permission was assessed within the ES (December 2013) and the details of the reserved matters application are within the parameters of the outline permission. As such, the cumulative assessment in the ES (December 2013) remains relevant, and this reserved matters application is not considered further.

3 Land at Hamilton Lane, Hamilton, Leicestershire

- 9.11 This is a reserved matters application brought forward pursuant to an outline permission. The outline permission was assessed within the ES (December 2013) and the details of the reserved matters application are within the parameters of the outline application. As such, the cumulative assessment in the ES (December 2013) remains relevant, and this reserved matters application is not considered further.

4 Land off Millstone Lane, Queniborough, Leicestershire

- 9.12 This full planning application for the erection of up to 101 dwellings on land off Millstone Lane, Queniborough benefits from a resolution to grant planning permission. The site is located to the north of Syston and the north of the NEoL site. As above, the application does not identify a build period for the scheme, however the Transport Assessment ('TA (February 2014)') submitted with the planning application uses an assessment year of 2019 to assess baseline traffic flows. Given these timescales it is anticipated that the construction period for this development will be concurrent to the NEoL SUE development.
- 9.13 The TA (February 2014) identifies that junctions and the local highway network located adjacent to the scheme would adequately accommodate the development traffic without adverse impact. On Melton Road north of Millstone Lane the development will increase traffic flows by up to 13 vehicles (a 1.4% increase) which is a very modest increase, within the natural daily fluctuation of traffic flow, and is not material. Equally, the TA (February 2014) identifies that on Melton Road and at the Barkby Road roundabout only minor increases in use are anticipated and an improvement scheme is not necessary. These minor impacts are not anticipated to affect the NEoL SUE scheme.
- 9.14 Given the distance from the NEoL SUE scheme and the location of the settlement of Syston, it is considered that the potential for significant cumulative effects on the scheme would be negligible.

Updated Summary & Conclusions

- 9.15 This Supplementary ES (August 2014) has been prepared on behalf of CEG and reviews whether the findings of the ES (December 2013) remain relevant in the context of the changes to the parameter plans assessed and further survey work undertaken since submission of that document.

- 9.16 The scheme comprises a residential led (4,500 home) Sustainable Urban Extension to the North East of Leicester and includes two local centres, one district centre, educational and community provision, up to 13 hectares of employment land, open space and landscaping and associated infrastructure works. The changes relate to the detail of the southern access road, remodelling of the lake within Hamilton Park and amendments to the parameter plans to the north eastern corner relating to density and heights.
- 9.17 The Supplementary ES (August 2014) has reviewed the following environmental matters:
- 1 Landscape and Visual Effects
 - 2 Ecology and nature conservation
 - 3 Water Environment (including Flood Risk)
 - 4 Transport
 - 5 Air Quality
 - 6 Noise
 - 7 Socio-Economics
- 9.18 The changes do not require information in relation to the heritage assessment and agriculture assessment provided within the ES (December 2013).
- 9.19 The conclusions reached within this Supplementary ES (August 2014) are largely consistent with those identified within the ES (December 2013). The effects of the changes in relation to the southern access road and adjacent land have however led to an increase in the beneficial effects arising from the development during the operational phase. No additional mitigation measures to those described within the ES (December 2013) have been identified within this Supplementary ES (August 2014) with the exception of those measures in built within the amendments to the parameter plans.

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