15 SUMMARY

15.1 INTRODUCTION

15.1.1 This chapter forms the summary of the Environmental Statement ("ES") which addresses any likely significant environmental effects as a result of the Proposed Development at land north of Thompsons Farm, Keresley (the "Application Site" or "Site").

15.1.2 This ES has been prepared on behalf of Lioncourt Strategic Land (the "Applicant") in support of a planning application seeking outline permission for up to 500 dwellings, demolition of Thompsons Cottage and associated building, areas of open space, landscaping, associated infrastructure and access (and emergency access) off Bennetts Road North.

15.1.3 The Application Site is situated within the administrative area of Coventry City Council (CCC).

15.1.4 The ES has been coordinated and managed by Pegasus Group. The consultants who have contributed to the preparation of this ES are referenced in the project directory at the front of this document, along with information demonstrating their "expertise to ensure the completeness and quality of the ES", in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (amended 2018) (the "EIA Regulations").

Availability and Comments

15.1.5 This ES can be viewed at the offices of Coventry City Council, additional copies of the Non-Technical Summary ("NTS") (no charge), ES Volume 1 (£100 plus postage) and the Technical Appendices (£150 plus postage) are available from Pegasus Group, 5 The Priory, Old London Road, Canwell, Sutton Coldfield, B75 5SH. The complete ES can also be obtained in CD format for £10 from the same address. Comments on the planning application should be sent to the Coventry City Council Planning Department.

Screening and Scoping

15.1.6 The EIA Regulations require that any proposed development falling within the categories set out within Schedule 2 should be considered as 'EIA Development' where the development is considered likely to have significant effects on the environment by virtue of such factors as its nature, size or location (Regulation 2).

15.1.7 The Proposed Development falls within the category of "urban development projects" under Schedule 2, paragraph 10(b) and exceeds the associated development threshold of 150 dwellings and an overall development area of 5ha; accordingly the Applicant has undertaken an EIA, the findings of which are set out in this ES.

15.1.8 In order to determine the scope of an EIA, the EIA Regulations make provision for, but do not statutorily require, an applicant to request that the local planning authority ("LPA") provide a written opinion as to the information to be provided within the ES. A request for a Scoping Opinion, which included information regarding the proposed scope, was submitted on behalf of the Applicant to CCC on 30th October 2018, who subsequently responded on 21st December 2018. These documents are included at Appendix 2.1 and 2.2.

15.1.9 Accordingly, this ES has addressed those environmental issues agreed in the scoping process which are considered pertinent and that could potentially result in "likely significant effects" as required by the EIA Regulations. The environmental themes scoped into or out of the ES are provided in Table 15.1.

Table 15.1: Environmental Themes Scoped In/ Out

EIA Topic (as stated in EIA Reg 2017)	Scoped In / Out	How/Where addressed/Reason for Scoping Out
Population	Scoped in	Assessed within the Socio Economic chapter and to a lesser degree in other technical environmental chapters where impacts could affect human beings
Human Health	Scoped in	Assessed within the Air Quality chapter and to a lesser degree in other chapters such as Ground Conditions, Noise Environment, Landscape and Visual, Socio Economic and Transport
Biodiversity (e.g. flora and fauna)	Scoped in	Assessed within the Ecology and Nature Conservation chapter
Land (e.g. land take)	Scoped in and scoped out	Assessed within the Landscape and Ecology Chapters. Given the Site is comprised of lower Grade soils and the principle of development has been accepted through its allocation, Agricultural Resources have been scoped out of this ES.
Soil	Scoped in and Scoped out	Assessed within the Ground Conditions Chapter. Given the Site is comprised of lower Grade soils and the principle of development has been accepted through its allocation, Agricultural Resources have been scoped out of this ES.
Water	Scoped in	Assessed within the Water Resources and Ecology and Nature Conservation chapters
Air	Scoped in	Assessed within the Air Quality chapter
Climate (including greenhouse gas emissions)	Scoped in and scoped out	Climate change considered accordingly within relevant disciplines such as Air Quality and Water Resources chapters. Micro climate and overshadowing have been scoped out
Material Assets	Scoped out	It is not considered there are any further 'material assets' to those already addressed within other EIA topics
Cultural Heritage (including Architectural and Archaeological aspects)	Scoped in	Assessed within the Archaeology and Cultural Heritage chapter
Landscape	Scoped in	Assessed within the Landscape and Visual chapter
Interrelationship between above factors	Scoped in	Assessed within each relevant topic chapter

15.2 THE APPLICATION SITE

15.2.1 The Site is within the administrative boundary of Coventry City Council (CCC) and adjoins the northern built up area of Coventry north of Keresley, north west of the city centre. The Site forms the northern part of the allocated Strategic Housing Site H2:1, Keresley Sustainable Urban Extension (SUE), which includes a number of separate house builders/land promoters across its extent.

15.2.2 Specifically, the Application Site lies to the south west of Bennetts Road North and to the north of Thompsons Road (which turns into Thompsons Lane). The Site's boundaries are in part defined by the existing settlement edge along Bennetts Road North to the east; and Thompsons Road to the south; open countryside to the west and the Keresley Rugby Football Clubs and properties on Burrow Hill Lane to the north. The closest settlements in proximity of the Application Site are Keresley End to the east and Corley to the north west. Other areas of note are the Prologis Park Industrial Estate to the south east and the M6 c. 0.7km north of the Site. The city centre of Coventry lies circa 6km south east of the Site.

15.2.3 The Application Site extends to approximately 20.7ha and is comprised predominantly of arable land within broadly rectangular parcels, with a number of field boundary hedgerows, trees and a pond. Two buildings are located in the eastern area of the site, these comprise a two-story dwelling, Thompsons Cottage and an associated single-story outbuilding.

15.2.4 There are a number of PROW's in vicinity of the Site. Public Footpath No. M310b runs along the northern edge of the site, in an east to west alignment. The Coventry Local Cycle Route 1 also starts approximately 1km to the southeast of the Site, within Prologis Park providing connections onto Local Cycle Route 2 in the vicinity of the Arena Shopping Park.

15.2.5 There are no identified statutory ecological designations located within the Site or surrounding areas, with the closest such designation (Bedworth Sloughs Local Nature Reserve) located approximately 3.8km north east of the Site. Ensor's Pool Special Area of Conservation (SAC) lies approximately 6km north east of the Site. One Scheduled Monument, Corley Camp, is located within the study area, c.420m north-west of the Site and two Grade II* Listed buildings are recorded within 2km of the Site, Church of St Mary and Corley Hall and Attached Wall and Gatepiers. The locally listed Keresley House is also located circa 690m south-west of the Site.

15.2.6 The Application Site lies within the designated Coventry city-wide Air Quality Management Area (AQMA), which was declared by CCC in 2009 for the whole administrative boundary.

15.3 THE PROPOSED DEVELOPMENT

15.3.1 The planning application seeks outline permission for up to 500 residential dwellings, the demolition of Thompson's Cottage and associated buildings, green infrastructure (including sustainable urban drainage and play space), a vehicular access point, an emergency vehicular point and associated infrastructure and enabling works.

15.3.2 The planning application seeks outline planning consent with matters of landscaping, layout, scale and appearance reserved for future determination and detailed consent for means of access.

15.3.3 More specifically, the formal description of the Proposed Development set out in the planning application is as follows:

Summary

"Outline permission for the erection of up to 500 residential dwellings with all matters reserved with the exception of access, and comprising of:

- ***The demolition of Thompsons Cottage and associated buildings;***
- ***Provision of green infrastructure including strategic open space, sustainable urban drainage, green networks, play space and associated structural and general landscaping;***
- ***A vehicular access point and emergency access point onto Bennetts Road North;***
- ***Network of pedestrian and cycle routes; and***
- ***All associated infrastructure and enabling works***."

15.3.4 The Proposed Development will provide up to 500 dwellings over circa 15.3ha. The exact housing mix will be determined at the reserved matters stages, however a range of dwelling types and tenures of varying sizes are proposed, including an element of 25% affordable housing. Homes will vary in height, with the majority being 2 storeys (max 10m above proposed ground level) with potential for 2.5 and 3 storey dwellings (max 13m above proposed ground level) for key buildings and nodal points.

15.3.5 The Proposed Development will be served via an access point in the form of a new four-armed roundabout which links with Bennetts Road North and Grove Lane. This access will lead to a central avenue corridor which will provide a loop within the Proposed Development and from which spurs would then provide access to the wider parcels via a clear movement hierarchy. This street hierarchy has been designed to accord with the guidance of the Coventry City Council 'Urban Design Guide' (2019) and recognises the need to combine the function of the street as a movement corridor alongside its place function. A further secondary access for emergency vehicles only is also proposed onto Bennetts Road North.

15.3.6 The Proposed Development will include circa 5.67ha of green infrastructure, incorporating parks and open spaces, accessible natural green space and play space in accordance with the standards outlined in CCC Green Space Strategy (2008-2018). The public open space has been designed to cater for the recreation needs of the existing and new community at Keresley, and it is intended that there will be a Local Landscaped Area of Play and Trim Trail with play experiences throughout the site.

15.3.7 The green infrastructure strategy will deliver benefits through the introduction of new habitats, landscape enhancement and the creation of accessible natural green space, contributing to the wider green infrastructure network. The approach to the landscape strategy provides a high-quality landscape setting and strong green infrastructure framework to the proposed buildings. The landscape objectives of the Proposed Development are to:

- Retain boundary vegetation, where possible, to maintain screening and filtering of the Proposed Development;
- Retain the existing hedgerow network, where possible, to create 'green corridors' throughout the Proposed Development. This will assist in breaking up the massing of development and articulating the skyline;
- Creation of a central open space that will provide a landscape-led drainage strategy and will ensure that Thompsons Farm Copse is retained;

- Provide additional planting to generate a landscape context that shows a variety of stages of vegetation establishment and maturity, ensuring succession of planting and biodiversity; and
- Enhancement of existing landscape elements with new planting and appropriate management to help integrate the Proposed Development into the local landscape character.

15.3.8 A comprehensive network for pedestrians and cyclists will also be included that will comprise both on and off-road paths. The existing PROW on the north western boundary will be retained and includes significant areas of green space which will include new, informal pedestrian and cycle links. Walking/cycling routes will also lie adjacent to the main central avenue through the Proposed Development, in addition to paths within the proposed green infrastructure in the south western corner of the site, with the potential for connection to the off-site network. The onsite network will also seek to connect into the existing offsite PROW where possible.

15.3.9 A strategy for surface water drainage at the Site has been developed to ensure the maximum surface water flow rates leaving the Proposed Development will be no greater than the flow rates that currently leave the site. Surface water from the Proposed Development will be stored on-site in basins before draining into watercourses via the local surface water sewer network. The existing pond on the site is to be retained as part of the surface water drainage system and the new basins designed to provide a range of wildlife habitats to enhance the biodiversity of the site.

15.3.10 A utilities assessment of the site is submitted as part of the planning application and at the time of writing the report (following discussions with utility companies), it was concluded that there is sufficient capacity in the gas, electricity and telecoms networks and no off-site reinforcement for these utilities is considered necessary. It is likely that all supplies will be taken from the services within Bennetts Road North at a suitable point along the site's frontage.

15.3.11 The Proposed Development will be phased over several years, in tandem with the surrounding allocation. It has been assumed that construction of the Proposed Development could commence 2020/2021 and last for approximately 10 years, resulting in an estimated completion circa 2030/2031.

15.3.12 Given the outline nature of the planning application, in accordance with EIA case law, the EIA has been carried out with regards to a range of fixed development parameters to enable a robust assessment of the proposals to be completed. These parameters, as show on Figures 4.1-4.3 and include land use / development footprint, maximum heights and key access parameters.

15.4 CONSIDERATION OF ALTERNATIVES

15.4.1 The EIA Regulations require an ES to include a description of the reasonable alternatives studied by the developer, which are relevant to the proposed project and an indication of the main reasons for selecting the chosen option. Consideration has been given to the following:

- The 'No Development' Alternative: this refers to the option of leaving the Site in its current use. However, the site has now been allocated for housing, and forms an integral part of Coventry Council's housing strategy in The Local Plan, the 'no development scenario' would fail to assist in meeting these housing targets.

- Alternative Locations for the Proposed Development: As part of the Local Plan process alternative approaches for strategic residential development were considered including increasing the density of development on brownfield land and locating development beyond the Green Belt outside of Coventry. It was concluded that increased densities would not provide sufficient capacity to deliver the housing requirement or provide opportunities to diversify housing supply. In terms of locating beyond the Green Belt outside of Coventry, this would increase unsustainable patterns of commuting as there is emphasis on the importance of locating development along key transport corridors to facilitate access into the City. Therefore, the Local Plan process demonstrated that the allocation of the Keresley SUE is justified, effective and consistent with national policy.

- Alternative Uses for the Site: The Site's allocation for residential use within The Local Plan clearly demonstrates its suitability for residential development and its importance in meeting Coventry's housing need. It is therefore considered that other uses would unlikely be reasonable alternatives. In terms of employment development, there are already several existing and proposed employment sites in the surrounding area. Further retail development on a large scale in this location would inevitably lead to competition with Coventry City centre and hence not desirable, nor policy compliant. Consideration has been given to whether the Site could accommodate a mix of uses, in addition to residential dwellings, that were identified as part of the wider allocation e.g. local centre, primary school, employment. Following pre-application discussions with CCC and taking into account parcels already with permission, the Site's context and existing services, it was considered in order to produce sustainable, logical and balanced development, the site is best suited to provide residential development.

- Alternative Designs: Over the period of the development of the masterplan and the associated environmental work, the early design of the Proposed Development has been influenced by the key constraints and opportunities. Since the initial stages of the proposals, the masterplan has evolved through the different application of the development principles and through consultation with the project team have assisted to refine and structure the scheme. The Design and Access Statement accompanying the application discusses these issues further, however key alternative design elements which have been considered have included differing location of built form and open space, varying building heights across the site, alternative street hierarchy and road alignment, along with technical alternative designs in relation to the drainage strategy and emergency access options.

15.5 PLANNING POLICY CONTEXT

15.5.1 This chapter set out the planning policy framework in relation to the Site, specifically drawing attention to the acceptability of the Proposed Development against the Development Plan, the National Planning Policy Framework, the National Planning Practice Guidance and relevant Supplementary Planning Documents (SPD).

15.5.2 Of key consideration is the Development Plan which comprises the Coventry City Council Local Plan (adopted December 2017). **Policy H2** Housing Allocations identifies the sites allocated for housing development alongside essential details that will support the principles of sustainable development. The subject site is part

of the H2:1 Keresley Sustainable Urban Extension (SUE) allocation which is identified to deliver a total of 3,100 total dwellings. Essential site-specific requirements are identified for the allocation as a whole, including retail space within local centres, distributor link road, junction improvements, a 2 form entry (2FE) primary school, retention of important ecological features, a green corridor along Hall Brook, protection of Jubilee Woodland and appropriate screening to existing residential development. Specific design guidance on the whole allocation is also discussed within the draft SUE Urban Design Guidance SPD (February 2019), which includes an Indicative Masterplan drawn up by the Council showing how they envisage the Keresley SUE being developed. Most importantly, the Council's Masterplan identifies Land North of Thompsons Farm for residential development, confirming the Council consider the site suitable for residential development. This has informed the production of the Parameters assessed within this ES.

15.6 SOCIO ECONOMICS

15.6.1 This chapter has assessed the potential socio-economic effects arising from the Proposed Development, addressing points mainly related to the impact upon the human population who live in vicinity of the Application Site.

Baseline Conditions

15.6.2 Baseline socio-economic conditions were established, specifically considering population and recent trends, skills, deprivation, employment, the business base in Coventry, wages, commuting, employment, economic activity, health and educational capacity. This illustrates that between 2007 and 2017, Coventry's population increased at more than double the rate of the West Midlands and Great Britain. In recent years, the labour market in Coventry has seen more modest employment growth than the reginal and national averages. Coventry has a lower rate of economic activity than regional and national averages and a higher unemployment rate. The LSOA in which the Proposed Development sits (Coventry 002A) is in the most deprived 40.0% of LSOAs in England.

Likely Significant Effects

15.6.3 In respect of the construction phase, the assessment indicates that the Proposed Development will have the following temporary effects:

- During the Proposed Development, 128 temporary jobs could be supported per annum over the build period.
- Around £7.3million of gross value added per annum is estimated to be contributed to the Coventry economy over the 10-year build period, or £63.1million over the entire build phase (present value).

15.6.4 These impacts are considered to have a significant beneficial effect.

15.6.5 In respect of the operational phase, the assessment suggests that the Proposed Development will have the following permanent effects:

- An estimated 564 economically active and employed residents are estimated to live in the Proposed Development;
- The Proposed Development could generate an additional household expenditure of £12.3million per annum once it is complete and fully occupied;
- The dwellings could generate additional £884,000 per annum in Council Tax payments.

- The Proposed Development has the potential to generate around £3.3million in New Homes Bonus revenue for Coventry City Council.

15.6.6 Looking at the cumulative impacts of land bounded by Hall Brook, which is also part of the Keresley Sustainable Urban Extension and therefore in close proximity to the Proposed Development, it is estimated to: create 1,600 construction jobs (in person years); 80-90 new service sector jobs associated with the Local Centre, which may include a new doctors Surgery; and 12.2 hectares of open space provision across the site.

15.6.7 These impacts are considered to have a significant beneficial effect in the long-term.

Mitigation and Enhancement

15.6.8 As a result of the impacts identified in this assessment, a contribution to education provision would be the only form of mitigation required. There are no other identified negative effects associated with the Proposed Development. When the Proposed Development is considered in isolation it may generate additional commuting flows although this is considered to be outweighed by the other positive effects that the Proposed Development would have on the economy.

Conclusion

15.6.9 The socio-economic effects generated during construction and operation of the Proposed Development at the Application Site are considered to provide significant positive effects. The Proposed Development is therefore acceptable in socio-economic terms.

15.7 LANDSCAPE AND VISUAL

15.7.1 This chapter has provided an assessment of the landscape and visual effects of the Proposed Development and has identified and assessed the significance of, and the effects of, change resulting from the Proposed Development on both the landscape as an environmental resource in its own right and on people's views and visual amenity.

Baseline Conditions

15.7.2 The Site is located to the west of Bennetts Road North, Keresley and covers ca. 20.7ha of agricultural land. It occupies a north-east facing slope that rises gradually from ca. +120-130m Above Ordnance Survey (AOD) to the western edge at ca. +140-150m AOD, where the western boundary lies just below a local ridgeline.

15.7.3 The spatial scope for the LVIA has been initially determined by reference to the area of landscape that may be affected and from which the Proposed Development may be visible. Consequently, the study area for this LVIA is based on an approximate radius of 3km from the Site.

15.7.4 The Site is not located in the Green Belt however the southern boundary of the Birmingham Green Belt does coincide with the northern boundary of the site. To the south of the site and Thompsons Road/Lane lies an area of Ancient Woodland known as Bunsons Wood. The site forms a part of the Coventry City Councils SUE allocation that has been removed from the Green Belt following the adoption of the City Councils Local Plan in December 2017. There are no other landscape-related planning designations within 1km of the Site that might be affected by appropriate development.

15.7.5 Policy H2 of the Coventry City Council adopted local plan identifies land at Keresley to be allocated for housing development (site reference H2:1) and states that proposals "*are to be brought forward in full accordance with comprehensive Masterplans and in accordance with the Council's Urban Extension Design Guidance SPD*". It also specifies that medieval fishponds, important (ancient) hedgerows and ancient woodlands should be retained and suitable screening to existent residential dwellings.

Landscape Character

15.7.6 The Site is located within National Character Area 97: Arden. Some of the key characteristics of this area are relevant to the site and study area however the scale of the NCA is such that effects on the NCA are not likely to be significant.

15.7.7 At a more local level, consideration has been given to the published studies of the 'Warwickshire Landscape Character Guidelines'. The site is located in an area defined by the Ancient Arden Landscape Character Type (LCT), its key characteristics described as:

- A varied undulating topography;
- A network of winding lanes and trackways often confined by all hedgebanks;
- An ancient pattern of small to medium sized fields;
- Hedgerow and roadside oaks;
- Field ponds associated with permanent pasture; and
- Many place names ending in Green or End.

15.7.8 This LVIA has undertaken a more detailed assessment of landscape character and its sensitivity in respect of a potential residential masterplan on the site and in the context of the local landscape character.

15.7.9 Overall, the landscape analysis has determined the Ancient Arden LCT to be of *medium value* and *low to medium susceptibility*; determining the landscape type to be of *medium sensitivity* in landscape terms.

15.7.10 At a local level, the landscape analysis has determined the character of the Site and its immediate context to be of *low to medium value* and *low to medium* susceptibility. Therefore, it is considered that the Site and its immediate context is of *low to medium* sensitivity.

Visual Amenity

15.7.11 The visual assessment references a series of viewpoints that are representative of visual receptors in the area. These illustrate views towards the site in the context of the surrounding landscape and have been used to inform judgements on impacts for specific receptors. Representative visual receptors include: residential receptors, including those along the western edge of Keresley End; recreational receptors such as walkers, cyclists and horse-riders, using public rights of way in the area; and road users, including those using local roads such as Bennetts road and Rock Lane.

15.7.12 The LVIA includes a detailed description for each of the locations identified including judgements on overall sensitivity.

Likely Significant Effects

Construction

15.7.13 For landscape effects, it is considered that the magnitude of impact on local landscape character during construction as a result of the Proposed Development is

medium to high, which combined with the low to medium sensitivity of the local landscape character in this location, gives rise to a minor to moderate adverse effect in the short term.

15.7.14 In relation to visual effects, overall, it is considered that the magnitude of impact on visual amenity generally during construction is high, which combined with the medium to high sensitivity of the various visual receptors in this location, gives rise to an overall minor to moderate adverse effect in the short term.

Operation

15.7.15 In terms of physical landscape resources, the direct changes will be restricted to the Site itself. These will include the loss of some hedgerows and trees; changes to landform required for the creation of practical development platforms; sustainable drainage systems and impacts generated by the change in land use from the current field enclosures to residential development; areas of existing green infrastructure will be retained and enhanced, and new areas of open space created (including proposed landscape planting).

15.7.16 Overall the physical landscape impacts are considered to be direct and will be limited to the extent of the Site. There will be no additional direct impacts on the wider landscape context. The physical changes will give rise to perceived changes in the landscape character.

15.7.17 In respect of the landscape character of the wider area, the degree of change to the Ancient Arden LCT in this location is likely to be limited. Overall the magnitude of impact to this area will be negligible; assessed alongside the medium sensitivity, this will result in a negligible-minor adverse effect.

15.7.18 In the longer term, at year 15 after completion, the proposed landscape planting strategy will have established sufficiently to help to further integrate the Proposed Development into the surrounding landscape character. The magnitude of impact will reduce to neutral to negligible and there will be a negligible adverse effect.

15.7.19 For the site in its immediate landscape context, notwithstanding that the magnitude of impact on the site itself would be high (which is generally expected of any greenfield site), in the context of the local landscape on this part of the settlement edge, the magnitude of impact on the local landscape character is considered to be medium. This is however balanced with the design of the masterplan and its associated inherent landscape mitigation. Overall, this will result in a minor to moderate adverse effect, increasing across the site primarily on the basis of the land use change which would be the case for many residential developments on a green field site, on the settlement edge.

15.7.20 In the longer term, at year 15 after completion, the proposed landscape planting strategy will have established sufficiently to help to further integrate the Proposed Development into the surrounding landscape character. The magnitude of impact will reduce to low to medium and there will be a minor adverse effect.

15.7.21 For visual effects a range of representative viewpoints have been considered, including several of 'high' sensitivity. For the 'operational' scenario, these consider effects at completion, once construction operations have ceased and all components of the Proposed Development are in place, but also 15 years post completion, where implemented landscape components are established and likely to be effectively forming their intended function.

15.7.22 Of the representative viewpoints tested, individual significant effects have been identified from Viewpoint 2, being a high sensitivity receptor located immediately adjacent to the site. Other impacts are not significant, ranging from negligible adverse to moderate adverse. Taken overall (i.e. considering the broader visual context represented by the various representative viewpoints) the degree of impact is not considered significant overall.

Mitigation and Enhancement

15.7.23 Landscape and visual matters have been considered throughout the period of the masterplan process for the Proposed Development. This has included coordination with environmental work and the application of an iterative LVIA process

15.7.24 Consequently, the early design stages of the Proposed Development have been influenced by the landscape and visual constraints and opportunities that are present in the local landscape, both on the Site and in the surrounding area. This process has ensured that the location, scale and character of the Proposed Development has evolved in response to the local landscape character and will be acceptable in landscape and visual terms. Such mitigation is embedded and secured by the Parameters Plans (Figures 4.1-4.3) which shows areas of the development envelope subject to a limitation in building heights, and those areas of retained and new landscape planting, all of which combine to address the local landscape and visual constraints.

15.7.25 The development framework has undergone several different iterations as part of this process, and the overall aim of the landscape and visually led approach has been applied.

15.7.26 As a result, mitigation is embedded within the design of the Proposed Development and forms an integrated part of the proposals

Conclusion

15.7.27 Overall, the Proposed Development will result in some limited impacts at a localised level. The scale and form is likely to result in impacts which are limited to the site area and its immediate context, which generally include the settlement edge of Keresley End at Bennetts Road North and Thompsons Road.

15.7.28 A range of landscape and visual receptors have been tested and impacts have been identified for both landscape character and for visual receptors. This includes an iterative process whereby potential impacts have informed the landscape strategy for the site and mitigation has become ingrained in the Proposed Development.

15.7.29 The residual impacts identified as part of this process highlight that the greater degree of impact relates to the site and to a very localised immediately adjacent to the site; the effect on potential receptor groups in the wider landscape context will be generally very limited.

15.7.30 Overall landscape and visual effects are not considered to be significant and consequently, on balance, the Proposed Development is considered acceptable in landscape and visual terms.

15.8 ECOLOGY AND NATURE CONSERVATION

15.8.1 This chapter has assessed the likely significant effects on ecology and nature conservation during the construction and operational phases of the Proposed Development. The assessment has been carried out in accordance with current best practice guidance for assessing ecological impacts as defined by the Chartered Institute of Ecology and Environmental Management.

Baseline Conditions

15.8.2 Ecological surveys of the Application Site have been undertaken, including a desk study, an extended Phase 1 Habitat survey and a range of Phase 2 faunal surveys.

15.8.3 No ecological designations are present within the Application Site, whilst all such identified sites are sufficiently separated from the Application Site such that the Proposed Development will not result in any significant effects on ecological designations.

15.8.4 The Application Site is dominated by arable land of negligible ecological value, albeit boundary hedgerows, trees and a single pond along with associated vegetation provide some ecological value at the local level. Evidence for the presence of the protected species Badger and nesting birds was recorded during the survey work undertaken, along with evidence of limited use by foraging and commuting bats.

15.8.5 The Application Site has been considered in relation to Warwickshire County Council's biodiversity offsetting metric 'BIA' spreadsheet tool, including in relation to the resultant effects of the Proposed Development.

Likely Significant Effects

15.8.6 A range of likely ecological effects have been identified in respect of habitats and faunal species, albeit in general these are considered to be non-significant, albeit the Proposed Development (construction and operation) could result in a small number of significant effects in the absence of mitigation. Other (non-significant) negative effects are centred on the potential for the proposals to result in adverse effects on nesting birds and other faunal species (particularly Badger should these be present or enter the site) in the absence of mitigation.

Mitigation and Enhancement

15.8.7 Where appropriate, ecological mitigation measures and considerations have been designed or embedded into the scheme and accordingly, form the basis for the parameters scheme which has been assessed prior to further mitigation. Particular measures incorporated within the parameters design include the following:

- Retention of the majority of boundary hedgerows and associated boundary vegetation within landscape buffers along the margins and through the site;
- Retention of the existing pond and associated wooded vegetation within the proposed Green Infrastructure; and
- Creation of substantial areas of natural green space (measuring approximately 1.98ha) forming connected corridors through the site (and further linking with offsite Green Infrastructure within the wider Keresley SUE and beyond), in particular including new wetland features as part of

the SUDs design, along with additional native tree and hedgerow planting and grassland areas.

15.8.8 Additional mitigation measures including appropriate working methods and protection measures are identified to mitigate potential effects during the construction phase (e.g. a Construction Environmental Management Plan which will include best practice methods to avoid any significant ecological effects, including pollution prevention measures). Mitigation for any minor loss of boundary habitats and hedgerows will be provided through substantial new habitat creation within open space/green infrastructure areas (including SUDs features), whilst faunal measures and enhancements relating to Badger, bats and birds in particular are proposed in order to mitigate any residual effects identified and provide enhancement measures at the site. Opportunities for enhancements to biodiversity are also proposed, in accordance with NPPF, the NERC Act 2006 and local policy. Proposed enhancements will also deliver significant benefits in terms of green infrastructure, providing an extensive network of green links and corridors through and around the Application Site and linking with surrounding Green Infrastructure corridors, including within and beyond the wider Keresley SUE.

Conclusion

15.8.9 The habitats and faunal use recorded at the application site is considered to be of generally low ecological value. Following mitigation, it is considered that the Proposed Development complies with planning policy and would result in an overall gain in the existing ecological interest supported by the Application Site, with particular benefits in respect of habitats, bats, Badger and birds. Together, these gains are considered to result in an overall beneficial effect of moderate magnitude, which is likely to be significant at the local level.

15.9 ARCHAEOLOGY AND CULTURAL HERITAGE

15.9.1 This chapter has assessed the likely significant effects of the Proposed Development on the archaeological resource, built heritage and the historic landscape (known collectively as the cultural heritage resource).

Baseline Conditions

15.9.2 The assessment focused upon the cultural heritage resource of the Application Site, although the cultural heritage resource of a minimum 500m 'buffer' around the Application Site has also been assessed in detail, referred to as the "study area." A larger "study area" of 2km has also been utilised in order to identify potential effects on heritage assets as a result of development within their setting, in line with Historic England's guidance.

15.9.3 No designated heritage assets are located within the Application Site.

15.9.4 One Scheduled Monument, Corley Camp is located within the 2km study area, c.420m to the north-west of the Application Site.

15.9.5 Two Grade II* Listed buildings are recorded within 2km of the Site, comprising Church of St Mary (NHLE ref. 1299365) and Corley Hall and Attached Wall and Gatepiers (NHLE ref. 1034864).

15.9.6 18 Grade II Listed buildings are recorded within 2km of the Site including the Holly Farmhouse (NHLE ref. 1365110), located c.200m north of the Site's northern boundary.

15.9.7 No significant below ground archaeological remains were identified within the Site during the archaeological evaluation (trial trenching) and geophysical survey carried out during the preparation of this ES.

15.9.8 Archaeological activity is recorded within the wider vicinity of the site dating from the prehistoric period onwards, and it is likely that the site has formed agricultural hinterland from at least the medieval period.

15.9.9 A lane of at least medieval origin, Le Heynelane (MCT2077), runs along the northern edge of the site, along the historic Corley/Kersley parish boundary, preserved as a footpath. The historic lane and associated hedgerows (MCT15506) will be retained within the Proposed Development.

15.9.10 Thompson's Lane, which bounds the southern edge of the Site (MCT2086), is recorded in 15th century sources as Le Cartelane. It survives as a holloway way for part of its length and is bounded by hedgerows potentially of medieval origin (MCT14323; MCT14324). The historic lane and associated hedgerows will not be affected by the Proposed Development.

15.9.11 Two hedgerows within the Site are suggested to lie along boundaries of at least medieval origin, on the basis of the description given in an early 15th-century source (MCT16861, MCT16857). The hedgerow which forms the western boundary of the site (MCT16857) will be retained in the Proposed Development and there will only be a minor impact to the hedgerow within the site (MCT16861).

Likely Significant Effects

15.9.12 The Proposed Development will result in an effect which is not significant on the heritage asset of a hedgerow (MCT16861) which runs across the south of the Application Site. This hedgerow represents a heritage asset of low significance. The hedgerow will largely be retained within the Proposed Development except at two points where access roads will cross it. This will have a minor effect on the asset, which is not considered to be significant.

Mitigation and Enhancement

15.9.13 Mitigation by design has been embedded within the Proposed Development, including the retention of historic hedgerows where possible and the sensitive treatment of the historic lanes.

Conclusion

15.9.14 No effects have been identified which are considered significant in EIA terms.

15.10 GROUND CONDITIONS

15.10.1 Following an assessment of the baseline conditions for the Application Site using publicly available environmental information including existing ground investigation information, an assessment of the potential impacts of the Proposed Development on ground conditions has been undertaken.

15.10.2 The assessment considered the following:

- Physical effects of the Proposed Development;
- The potential ground contamination effects on the Proposed Development;

- The impacts from polluting substances during the construction and operational phases; and
- The implications of soil / material quality for reuse or waste disposal.

15.10.3 The assessment of the impacts has been undertaken in line with Institute of Environmental Management and Assessment (IEMA) guidelines and the Good Practice Guidance for EIA.

Baseline Conditions

15.10.4 The Application Site comprised greenfield / arable land. The surrounding land also comprises agricultural land with some industrial activities including a pumping station, mineral workings and quarries (beyond 500m of the Proposed Development Site).

15.10.5 The Site is directly underlain by the Keresley Member (Sandstone and Argillaceous rocks) bedrock with no superficial cover. Made Ground associated infilled areas may potentially be present on the site.

15.10.6 The Keresley Member is a Principal Aquifer but there are no groundwater abstractions within 250m of the Site. The groundwater level and regime across the Application Site is unconfirmed as no detailed ground investigation was undertaken at this stage except for infiltration testing.

15.10.7 The Application Site and the surrounding area has low or very low risk of ground instability and there are no important/sensitive geological sites within 500m of the Application Site and the site has a low to moderate risk of Unexploded Ordnance (UXO).

15.10.8 The potential contamination sources at the Application Site include the current and historical use of the Site as an agricultural land, potential Made Ground associated with the infilling of ponds on site and historical drains. Potential sources of contamination off-site include a pumping station and some historical mineral workings and quarries (although these are generally beyond 500m of the Site).

15.10.9 A preliminary risk assessment concluded that there was a potential moderate to low risk to human health and controlled water receptors, mostly associated with off-site historical land uses and the potential presence of unknown filled (Made Ground) areas on the Application Site.

Likely Significant Effects

15.10.10 The impact assessment concluded that, with the implementation of appropriate mitigation measures, there will be an overall negligible effect on the ground conditions during the construction phase.

15.10.11 For the operational phase, those mitigation measures identified for the construction phase will improve the overall ground condition on the Proposed Development, therefore the operational effects are also negligible.

Mitigation and Enhancement

15.10.12 Designed mitigation generally will be in accordance with the relevant legislation, regulations, best practice guidance and pollution prevention methods. Additional mitigation / enhancement measures identified generally relate to the suitable management of materials and excavations, silt management, covering stockpiles, sourcing of materials locally, suitable storage of materials, environmental

awareness training and the provision of a Construction Environmental Management Plan.

Conclusion

15.10.13 A detailed impact assessment was undertaken with respect to ground conditions at the Application Site following a review of the available baseline information.

15.10.14 The assessment follows the general principles outlined in the Institute of Environmental Management and Assessment (IEMA) guidelines for Environmental Impact Assessment (EIA) and the requirements of the Government's Good Practice Guide for EIA.

15.10.15 The assessment identifies that with the proposed mitigation and enhancement measures in place, there will be negligible effects predicted for the ground conditions during both the construction and operational phases of the Proposed Development. Therefore, the Proposed Development at the Application Site is considered to be acceptable and there would be no adverse significant effects.

15.11 WATER RESOURCES

15.11.1 The assessment considered the effect of the Proposed Development on water resources both during construction and subsequent operation. The specific matters assessed included fluvial and surface water flood risk, surface and foul water drainage, watercourse and groundwater quality and water supply.

Baseline Conditions

15.11.2 The Application Site is located wholly within Flood Zone 1 (low risk) in terms of fluvial flooding. There are a number of small watercourses and drainage ditches within and adjacent to the Application Site; however, these are too small to have a defined Flood Zone. There are two unnamed watercourses downstream of the Application Site that ultimately receive run-off from it via public surface water sewers. These are both tributaries of the Breach Brook which is located further to the east. The quality of the watercourses adjacent to and downstream of the Application Site is moderate. The groundwater underlying the Application Site is of low quality and is restricted in quantity.

15.11.3 A number of areas both within and adjacent to the Application Site, specifically Bennetts Road North and Howat Road, have been identified as being potentially at risk of surface water flooding. The surface water flooding within the Application Site is concentrated by the ground profile into a corridor that falls in a north-easterly direction towards Bennetts Road North. The Application Site receives surface water run-off from higher land to the west. This is primarily intercepted by existing ditches.

15.11.4 There are public surface and foul water sewers present within adjacent roads. A number of the surface water sewers provide an outfall for run-off from some parts of the Application Site and convey it to watercourses a short distance downstream.

Likely Significant Effects (without mitigation)

15.11.5 Flood Risk and Drainage: During construction, the Proposed Development will not have an effect on watercourse floodplains. Earthworks may increase the amount of sediment that could be washed downstream and there is a risk that existing flow paths and the field drain network may be disrupted, diverted, new routes created or blockages formed which, without mitigation, could increase flood risk and have a

significant effect on existing properties. During construction, the effect on the public foul water drainage system will be negligible as the flow rates generated by the construction compound will be very low.

15.11.6 Once the Proposed Development is completed, the increased flow rates resulting from the increased impermeable area present on the Application will increase downstream fluvial and surface water flow rates and flood risk. This could have a significant effect on off-site properties without mitigation.

15.11.7 The Proposed Development will also introduce additional flows into the local foul water drainage system for treatment at Finham WwTW.

15.11.8 Water quality: Construction activities on the Application Site have the potential to mobilise sediment and introduce construction materials and chemicals, and fuels onto the site, of which could result in potentially significant effects on water quality of watercourses and groundwater (however, the low permeability of the ground reduces the risk of this occurring and the effect is insignificant.)

15.11.9 The Proposed Development will introduce new pollution sources onto the Application Site, principally related to vehicles, which could, without mitigation, be conveyed via the surface water drainage system into the downstream watercourses and potentially result in significant impacts. The risk of these pollutants being able to infiltrate and reach groundwater however is considered to be low and the likely effect insignificant as a result of the low permeability of the ground.

15.11.10 Water supply: Construction activities will have a negligible effect on water supplies while works are being undertaken. The Proposed Development increases the population and consequently the water demand that must be met by the local distribution network.

Mitigation and Enhancement

15.11.11 The effect of construction activities on fluvial flood risk, surface water drainage and water quality will be managed through the use of defined site procedures to contain potential pollutants and limit the mobilisation of sediment and other debris. This will be supported by an inspection regime to identify potential blockages before they become a problem. Similarly, surface water flood risk will be managed through careful planning of earthworks operations to prevent adverse changes to flow paths. Adherence to these procedures will enable the potential effects to be considered insignificant.

15.11.12 The Proposed Development will include a surface water drainage system to intercept run-off and limit the flow rates released into the downstream watercourses to the existing annual average rate less 20% for all rainfall events up to and including at least the 1 in 100-year +40% rainfall event. This prevents uncontrolled flows leaving the site and, as the flow rates will be lower than the existing rates, a reduction in downstream fluvial and surface water flood risk can be expected; therefore, the effect of the Proposed Development on flood risk becomes negligible.

15.11.13 The inclusion of sustainable drainage features within the surface water drainage system will provide treatment to run-off from potentially polluting areas passing through them. For areas where there is a greater risk of pollution levels, interceptors will be used to capture pollutants. These measures will mean that the effect of the Proposed Development on watercourse and groundwater water quality will be insignificant.

15.11.14 In order to provide sufficient foul water sewer capacity for the Proposed Development, Severn Trent Water will undertake capacity improvement works. The use of water consumption reduction measures such as low flush toilets, water butts, water efficient appliances and shower heads, and lower flow taps will reduce the overall water demand of the Proposed Development. Severn Trent Water will also undertake capacity reinforcement works on the local water distribution network. The consequence will be that the effect on foul water drainage and on water supply will be negligible.

Conclusion

15.11.15 The effects of construction activities on the Application Site and the operation of the Proposed Development on the water environment, once the identified mitigation measures have been implemented, will be insignificant or negligible.

15.12 TRANSPORT AND ACCESS

15.12.1 This chapter has been prepared to assess the potentially significant environmental effects that could arise from the change in traffic flows during the construction and operation of the Proposed Development.

15.12.2 The assessment has been undertaken in accordance with the 1993 Institute of Environmental Assessment (now the Institute of Environmental Management and Assessment - IEMA) publication Guidance Notes No. 1: Guidelines for the Environmental Assessment of Road Traffic and specifically considers impacts in relation to severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents and safety.

Baseline Conditions

15.12.3 A full audit of the highway network surrounding the site has been undertaken as part of the assessment, the purpose of which was to identify land uses and locations that should be considered sensitive in accordance with the IEMA guidelines. As a result, links along Thompsons Road and Sandpits Lane were identified as being sensitive due to their nature as lightly trafficked, residential streets or having access to a school.

15.12.4 Traffic count data for 24hr AADT was obtained for a total of 24 links in proximity to the Proposed Development to provide a 2026 Do Minimum baseline. The existing sustainable transport situation was analysed, finding that the site is well served by public transport services and has a good pedestrian and cycling environment. Personal Injury Collision data for the most recent five-year period (2013 to 2018 inclusive) has been analysed for the site, finding no highway safety concerns that would need to be addressed as part of the Proposed Development.

Likely Significant Effects

15.12.5 The assessment of the impact of construction traffic concluded that construction traffic is unlikely to exceed IEMA thresholds and thus is anticipated to have a negligible impact on the local highway network.

15.12.6 The assessment of operational impacts included the consideration of two 'with development' scenarios; Do Something 1 (DS1) and Do Something 2 (DS2). The DS1 scenario included the Proposed Development only, whereas the DS2 scenario represented a cumulative development scenario which accounted for two additional forthcoming development sites within the Keresley SUE alongside the Proposed Development.

15.12.7 The assessment found that significant traffic increases (by IEMA guidelines i.e. changes of traffic flow by 30%) are only predicted on one link for the Proposed Development only scenario (DS1) and four links for the Cumulative Development scenario (DS2).

15.12.8 A detailed assessment of the links, assessing the likely impact on severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents and safety has been undertaken. The detailed assessment identified that the Proposed Development would have an impact of negligible to moderate adverse significance on severance, and an impact of negligible to minor adverse significance on all other criteria.

Mitigation and Enhancement

15.12.9 A number of mitigation measures have been identified to address any potentially significant traffic related effects resulting from the additional vehicle movements generated by the Proposed Development. For the construction phase, these mitigation measures include a Wheel Wash and the implementation of a Construction Traffic Management Plan.

15.12.10 A number of mitigation measures for the operational phase are integral to the Proposed Development. These include the provision of a site access junction and a fully integrated pedestrian and cycle strategy. Further measures also include the implementation of a Travel Plan and a contribution to the development of the Keresley Link Road.

Conclusion

15.12.11 The results of this assessment indicate that the potential environmental effects as a result of increased traffic generated by the Proposed Development are predicted to have a negligible to minor impact, which are not considered significant in EIA terms.

15.13 NOISE

15.13.1 This chapter assessed the potential construction and operational noise and vibration effects associated with the Proposed Development on the existing nearby Noise Sensitive Receptors (NSRs).

Baseline Conditions

15.13.2 The baseline noise climate across the Application Site is comprised of constant road traffic noise from the M6 motorway, located some 700m to the north. Traffic noise from the M6 is the dominant noise source across the Application Site. There is additional noise from intermittent vehicle noise on local roads and birdsong. There is also occasional noise from the rugby club located adjacent to the northern site boundary.

15.13.3 Nearby NSR include residential properties on Thompsons Road to the south and Bennetts Road North to the east and north-east. There are also isolated properties approximately 150m to the north/north-west on Burrow Hill Lane. Keresley Newland Primary Academy is located approximately 120m to the east and Keresley Community Library is located approximately 120m to the south-east.

Likely Significant Effects

15.13.4 Construction noise and vibration may, at times, be adverse at NSRs adjacent to the Application Site in terms of both average sound levels and overall duration of works, particularly for works taking place close to the Application Site boundary. However, due to the transitory nature of the works and use of best practice mitigation (BPM), it is considered likely that no significant environmental effects would occur. Construction noise and vibration effects would not be significant at Keresley Newland Primary Academy or Keresley Community Library due to the distance from the Application Site and screening provided by existing buildings.

15.13.5 Construction traffic noise is not expected to be significant due to the comparatively higher existing traffic flows on nearby roads.

15.13.6 Operational noise effects, in terms of changes to local traffic flows, have been assessed. Although a general increase in traffic flows is expected, the increases are not sufficient for the corresponding noise increases to cause a significant environmental effect.

Mitigation and Enhancement

15.13.7 Construction mitigation will be based on good construction practices. This will include restrictions on working hours, the use of well-maintained machinery, the selection of quiet machinery where possible, site staff training, phasing of works, where possible, and the use temporary noise barriers and screens. Noise and vibration would be managed through a Construction Environment Management Plan (CEMP). This mitigation would be secured through planning conditions should consent be granted.

15.13.8 With the use of good practice mitigation, noise and vibration levels from the site, together with the potential duration of exposure to high noise levels would reduce at nearby NSRs. Although some construction works would still be audible, as would be expected from all construction works, the effects would not be expected to be significant.

15.13.9 There are no mitigation measures with regards to operational traffic noise and the effects would be as described above, being not significant. In terms of mitigating noise affecting the Proposed Development, several measures have been incorporated into the design, including land buffers, solid garden fencing and appropriate acoustic specifications for glazing and trickle ventilators.

Conclusion

15.13.10 The Proposed Development would not be expected to generate significant noise and vibration effects during the construction or operational phases. Good practice mitigation measures would be required during the construction phase, but these are not a barrier to development.

15.14 AIR QUALITY

15.14.1 The air quality assessment examined the existing baseline conditions in the vicinity of the Proposed Development, and the expected effects during both the construction and operational phases of the Proposed Development.

Baseline Conditions

15.14.2 Although the Application Site is located within Coventry's city-wide Air Quality Management Area designated for exceeding the nitrogen dioxide national air quality objective, local air quality monitoring data and Defra national background mapping indicates that air quality in the vicinity of the Proposed Development is likely to be relatively good, meeting national air quality objectives.

Likely Significant Effects

15.14.3 The construction dust assessment identified that mitigation measures appropriate for a high risk site should be employed during construction. Where the appropriate measures are employed, any potential adverse effects arising from dust emissions would be minimised such that there is unlikely to be a residual significant effect on adjacent human receptors. Any effect from additional traffic during construction would be negligible.

15.14.4 The local air quality assessment identified that there would be negligible changes in the concentrations of air pollutants NO_2, PM_{10} and $PM_{2.5}$ as a result of changes in traffic resulting from the Proposed Development. The effects of these changes on human health would not be significant.

Mitigation and Enhancement

15.14.5 Mitigation measures, such as water spraying, are recommended during construction work to minimise dust emissions so that significant residual effects on sensitive receptors are unlikely.

15.14.6 The effects of the changes in air quality from the operational phase were found not to be significant, with all changes described as negligible or minor magnitude in accordance with best practice guidance.

Conclusion

15.14.7 The air quality assessment has concluded that the Proposed Development at the Application Site would be acceptable with no significant adverse effects once it is operational. During construction, with the application of appropriate mitigation measures, any adverse air quality effect would be suitably minimised such that there is unlikely to be a significant effect.

15.15 OVERALL CONCLUSION

15.15.1 This ES demonstrates that there are no overriding environmental constraints which would preclude the Proposed Development.

15.15.2 The design of the Proposed Development has taken account of the likely significant environmental effects and where necessary, mitigation measures form an integral part of the Proposed Development to ensure that the environment is suitably protected.