

19. Summary of Mitigation and Residual Effects

Introduction

- 19.1 The EIA and the design evolution have been an iterative process therefore many measures to mitigate potential adverse environmental effects have been incorporated into the design of the proposed development in order to avoid, reduce or offset negative changes. These measures are 'embedded mitigation' and are presented in Chapter 5: Proposed Development. They have been accounted for in each of the technical assessments, where relevant (see Chapters 7-17).
- 19.2 The residual effects of the proposed development have been assessed as part of the EIA and can be described as the effects which remain after the implementation of the embedded and any additional proposed mitigation measures. The residual effects have been identified for each category in the preceding technical chapters (Chapters 7-17) and are summarised in Table 19.1. It is expected that the appropriate mitigation measures will be secured through appropriately worded planning conditions. Reference should be made to each technical chapter for the definition of the significance of the effect stated.
- 19.3 Following the table is a discussion of the residual effects and a conclusion.

Table 19.1: Summary of Mitigation and Residual Effects

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
Ecology and Nature Conservation	Construction and Demolition	Woodland – accidental damage, site run-off pollution or encroachment and soil compaction by construction machinery could result in loss of habitat resulting in minor adverse impacts	Implementation of best practice pollution prevention and tree protection measures	Neutral which is not significant
		Trees – loss of habitat resulting in minor adverse impacts	Replacement planting of high to moderate value trees at a 3:1 ratio	Newly planted trees will be young in age and will not immediately compensate for the loss of mature specimens – minor adverse effect in the short term As the trees mature this will become a minor beneficial effect at the Local level in the medium-term
		Trees – accidental damage, site run-off pollution or encroachment and soil compaction by construction machinery resulting in minor adverse impacts	Implementation of best practice pollution prevention and tree protection measures	Neutral which is not significant
		Hedgerows – loss of habitat resulting in moderate adverse impacts	Replacement like-for-like planting within the scheme	Newly planted trees will be young in age and will not immediately compensate for the loss of mature specimens – minor adverse effect in the short term As the trees mature this will

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				become neutral which is not significant in the medium-term.
		Hedgerows – accidental damage, site run-off pollution or encroachment and soil compaction by construction machinery resulting in minor adverse impacts	Implementation of best practice pollution prevention and tree protection measures	Neutral which is not significant
		Bats – disturbance, modification or destruction of bat roosts in Building B2 and trees (if present) and loss of roosting habitat, killing and injury of bats resulting in minor adverse impacts	Updated bat surveys when necessary, supervised felling and EPS licensing if appropriate. Installation of bat boxes prior to loss of existing roosting habitat and into buildings during construction	Neutral which is not significant
		Bats – loss of foraging and commuting habitat resulting in minor adverse impacts	New habitat creation including woodland, tree and hedgerow planting and green corridors through the site	Neutral which is not significant
		Bats – light spill on to foraging and commuting habitat resulting in minor adverse impacts	Implementation of sensitive lighting principles	Neutral which is not significant
		Barn owls – disturbance of barn owl nesting and roosting site in building B3 resulting in minor adverse impacts	Installation of barn owl boxes prior to loss of existing roosting habitat.	Neutral which is not significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Barn owls – fragmentation of dispersal corridors resulting in minor adverse impacts	New habitat creation including green corridors through the site and provision of up to three barn owl boxes on site.	Neutral which is not significant
		Barn owl – light spill on to foraging and commuting habitat resulting in minor adverse impacts	Implementation of sensitive lighting principles	Neutral which is not significant
		Barn owl – collision risk with traffic resulting in minor adverse impacts	Areas of tree planting to encourage barn owls to fly up and over key roads	Neutral which is not significant
		Breeding birds – disturbance or destruction of active bird nests (if present) and loss of nesting habitat resulting in minor adverse impacts	Avoidance of vegetation clearance during nesting season or pre-commencement survey Installation of bird boxes prior to loss of existing nesting habitat and into buildings during construction	Neutral which is not significant
	Completed Development	Trees - If the trees are pruned at an inappropriate time or year or too extensively this could result in long-term damage resulting in minor adverse impacts	Implementation of a landscape and habitat management plan	Neutral which is not significant
		Hedgerows - If the hedgerows are pruned at an inappropriate time or year or too extensively this could result in long-term damage and loss of	Implementation of a landscape and habitat management plan	Neutral which is not significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		functionality resulting in minor adverse impacts		
		Bats – lighting disturbance resulting in minor adverse impacts	Implementation of sensitive lighting principles	Neutral which is not significant
		Bats - predation resulting in minor adverse impacts	Installation of additional bat boxes on new builds and trees	Neutral which is not significant
		Barn owl – lighting disturbance resulting in minor adverse impacts	Implementation of sensitive lighting principles	Neutral which is not significant
		Breeding birds - lighting, disturbance resulting in minor adverse impacts	Implementation of sensitive lighting principles	Neutral which is not significant
		Breeding birds - predation by cats resulting in minor adverse impacts	Installation of additional bird boxes on new builds and trees	Neutral which is not significant
Archaeology and Heritage	Demolition and Construction	Impacts to the setting of Balshaw Farm and Crook's Farm, Proctor's Farm and Home Farm resulting in minor adverse effects.	None proposed	Minor Adverse which is not significant
		Impacts to currently unknown archaeological remains of low importance resulting in minor to moderate adverse impacts which is significant	Phased programme of archaeological investigations	Neutral which is not significant
	Completed Development	No impacts anticipated	None required	No impact

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
Landscape and Visual	Demolition and Construction	Landscape Effects		
		Effects on Tree Cover resulting in major – moderate adverse impacts which is significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on Hedgerows resulting in major – moderate adverse impacts which is significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on Open Pasture resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on PRoW resulting in major - moderate beneficial impacts which is not significant	Best practice measures implemented through a CEMP	Major-moderate Adverse which is significant
		Effects on Local Landscape Character resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on Longton Bretherton Regional Landscape Character Area resulting in minor adverse impacts which is not significant	Best practice measures implemented through a CEMP	Minor Adverse which is not significant
		Effects on Green Belt resulting in minor adverse which is not significant	Best practice measures implemented through a CEMP	Negligible Adverse which is not significant
		Visual Effects (see Figure 7.2 for locations of visual receptors)		
		Effects on receptor R1 resulting in moderate adverse	Best practice measures	Moderate Adverse which is

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		impacts which is not significant	implemented through a CEMP	not significant
		Effects on receptor R2 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor R3 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor R4 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor R5 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor R6 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor R7 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor R8 resulting in minor adverse which is not significant	Best practice measures implemented through a CEMP	Minor-Negligible Adverse
		Effects on receptor R9 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate-Minor Adverse which is not significant
		Effects on receptor R10 resulting in minor adverse	Best practice measures	Minor-Negligible Adverse

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		impacts which is not significant	implemented through a CEMP	which is not significant
		Effects on receptor R11 resulting in moderate – minor adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate-Minor Adverse which is not significant
		Effects on receptor R12 resulting in moderate – minor adverse which is not significant	Best practice measures implemented through a CEMP	Minor-Negligible Adverse which is not significant
		Effects on receptor R13 resulting in moderate – minor adverse which is not significant	Best practice measures implemented through a CEMP	Minor Adverse which is not significant
		Effects on receptor R14 resulting in moderate – minor adverse which is not significant	Best practice measures implemented through a CEMP	Minor Adverse which is not significant
		Effects on receptor R15 resulting in no discernible effect which is not significant	Best practice measures implemented through a CEMP	No Determinable Effect which is not significant
		Effects on receptor R16 resulting in negligible adverse impacts which is not significant	Best practice measures implemented through a CEMP	Negligible Adverse which is not significant
		Effects on receptor R17 resulting in no discernible effect which is not significant	Best practice measures implemented through a CEMP	No Determinable Effect which is not significant
		Effects on receptor H1 resulting in moderate adverse which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor H2 resulting in minor adverse	Best practice measures	Minor - negligible Adverse

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		which is not significant	implemented through a CEMP	which is not significant
		Effects on receptor H3 resulting in negligible adverse which is not significant	Best practice measures implemented through a CEMP	Negligible Adverse which is not significant
		Effects on receptor H4 resulting in minor adverse which is not significant	Best practice measures implemented through a CEMP	Minor - Negligible Adverse which is not significant
		Effects on receptor PR1 resulting in major adverse impacts which is significant	Best practice measures implemented through a CEMP	Major Adverse which is significant
		Effects on receptor PR2 resulting in major adverse impacts which is significant	Best practice measures implemented through a CEMP	Major Adverse which is significant
		Effects on receptor PR3 resulting in major adverse which is not significant	Best practice measures implemented through a CEMP	Major Adverse which is significant
		Effects on receptor PR4 resulting in moderate adverse which is not significant	Best practice measures implemented through a CEMP	Moderate Adverse which is not significant
		Effects on receptor PR5 resulting in no determinable effect which is not significant	Best practice measures implemented through a CEMP	No Determinable Effect which is not significant
		Effects on receptor PR6 resulting in major adverse impacts which is significant	Best practice measures implemented through a CEMP	Major Adverse which is significant
		Effects on receptor PR7 resulting in negligible adverse	Best practice measures	Negligible Adverse which is

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		impacts which is not significant	implemented through a CEMP	not significant
		Effects on receptor P1 resulting in moderate adverse impacts which is not significant	Best practice measures implemented through a CEMP	Moderate - Minor Adverse which is not significant
	Completed Development	Landscape Effects		
	Effects on Tree Cover resulting in major – moderate adverse impacts which is significant	Implementation of Landscape Plan and Habitat Management Plan.	Minor Beneficial which is not significant	
	Effects on Hedgerows resulting in major – moderate adverse impacts which is significant		Minor Beneficial which is not significant	
	Effects on Open Pasture resulting in moderate adverse impacts which is not significant	The Landscape Plan will set out the necessary measures for the landscape management of the existing and new planting associated with the proposed development.	Moderate Adverse which is not significant	
	Effects on PRow resulting in moderate beneficial impacts which is not significant	The Habitat Management Plan will introduce habitat enhancement measures and detail the management practices that will develop and maintain wildlife habitats.	Major Beneficial which is significant	
	Effects on Local Landscape Character resulting in moderate adverse impacts which is not significant		Moderate – Minor Adverse which is not significant	
	Effects on Longton Bretherton Regional Landscape Character Area resulting in minor adverse impacts which is not significant		Negligible Adverse which is not significant	
	Effects on Green Belt resulting in minor adverse which		No determinable effect which	

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		is not significant		is not significant
		Visual Effects (see Figure 7.2 for locations of visual receptors)		
		Effects on receptor R1 resulting in moderate adverse impacts which is not significant	Implementation of Landscape Plan and Habitat Management Plan	Moderate Adverse which is not significant
		Effects on receptor R2 resulting in moderate adverse impacts which is not significant	The Landscape Plan will set out the necessary measures for the landscape management of the existing and new planting associated with the proposed development.	Moderate Adverse which is not significant
		Effects on receptor R3 resulting in moderate adverse impacts which is not significant		Moderate Adverse which is not significant
		Effects on receptor R4 resulting in moderate adverse impacts which is not significant	The Habitat Management Plan will introduce habitat enhancement measures and detail the management practices that will develop and maintain wildlife habitats.	Moderate Adverse which is not significant
		Effects on receptor R5 resulting in moderate adverse impacts which is not significant		Moderate Adverse which is not significant
		Effects on receptor R6 resulting in moderate adverse impacts which is not significant		Moderate Adverse which is not significant
		Effects on receptor R7 resulting in moderate adverse impacts which is not significant		Moderate Adverse which is not significant
		Effects on receptor R8 resulting in minor adverse impacts which is not significant		Minor - Negligible Adverse which is not significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Effects on receptor R9 resulting in moderate adverse impacts which is not significant		Moderate - Minor Adverse which is not significant
		Effects on receptor R10 resulting in minor adverse impacts which is not significant		Minor - Negligible Adverse which is not significant
		Effects on receptor R11 resulting in moderate - minor adverse impacts which is not significant		Moderate - Minor Adverse which is not significant
		Effects on receptor R12 resulting in moderate - minor adverse which is not significant		Minor - Negligible Adverse which is not significant
		Effects on receptor R13 resulting in moderate - minor adverse which is not significant		Moderate - Minor Adverse which is not significant
		Effects on receptor R14 resulting in moderate - minor adverse which is not significant		Minor Adverse which is not significant
		Effects on receptor R15 resulting in no discernible effect which is not significant		No Determinable Effect which is not significant
		Effects on receptor R16 resulting in negligible adverse impacts which is not significant		No Determinable Effect which is not significant
		Effects on receptor R17 resulting in no discernible effect which is not significant		No Determinable Effect which is not significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Effects on receptor H1 resulting in moderate adverse which is not significant		Moderate - Minor Adverse which is not significant
		Effects on receptor H2 resulting in minor adverse which is not significant		Negligible Adverse which is not significant
		Effects on receptor H3 resulting in negligible adverse which is not significant		Negligible Adverse which is not significant
		Effects on receptor H4 resulting in minor adverse which is not significant		Negligible Adverse which is not significant
		Effects on receptor PR1 resulting in major adverse impacts which is significant		Moderate Adverse which is not significant
		Effects on receptor PR2 resulting in major adverse impacts which is significant		Moderate Adverse which is not significant
		Effects on receptor PR3 resulting in moderate adverse which is not significant		Moderate-Minor Adverse which is not significant
		Effects on receptor PR4 resulting in moderate adverse which is not significant		Minor Adverse which is not significant
		Effects on receptor PR5 resulting in no determinable effect which is not significant		No Determinable Effect which is not significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Effects on receptor PR6 resulting in major adverse impacts which is significant		Moderate Adverse which is not significant
		Effects on receptor PR7 resulting in minor adverse impacts which is not significant		Negligible Adverse which is not significant
		Effects on receptor P1 resulting in moderate adverse impacts which is not significant		Minor Adverse which is not significant
Ground Conditions	Demolition and Construction	Exposure to unidentified sources of contamination hotspots within soils or groundwater and / or ground gas during construction process resulting in minor adverse impacts which is not significant	Create a soil management plan (SMP) and ensure best practice methods are carried out	Negligible , which is Not Significant .
		Pollution of site soils and / or surface and groundwater as a result of construction activities such as spillages of fuel resulting in minor adverse impacts which is not significant	Implement a CEMP which incorporates pollution control measures.	Minor adverse , which is Not Significant .
	Completed Development	Impact of soil or groundwater quality during the sites operational phase resulting in a negligible impact which is not significant	Implement a series of intrusive investigations; implement fuel interceptors and a suitable management plan	Negligible , which is Not Significant .
Flood Risk and Drainage	Demolition and Construction	Changes to Flood Risk on construction activities and the site resulting in major beneficial impacts	None proposed above the embedded mitigation	Major Beneficial which is

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
				significant
		Changes to Flood Risk to surrounding areas during construction resulting in moderate beneficial impacts	None proposed above the embedded mitigation	Moderate Beneficial which is significant
		Infilling of and diverting existing ditches impacting upon flood storage resulting in moderate beneficial impacts	None proposed above the embedded mitigation	Moderate Beneficial which is significant
		Infilling of and diverting existing ditches impacting upon flood risk resulting in moderate beneficial impacts	None proposed above the embedded mitigation	Moderate Beneficial which is significant
		Sedimentation of Mill Brook impacting upon channel capacity and flood risk resulting in minor beneficial impacts	Implementation of a plan incorporating measures based on pollution prevention guidance good practice	Minor Beneficial which is not significant
		Sedimentation of Mill Brook tributary and culverts upon channel capacity and flood risk resulting in minor beneficial impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Minor Beneficial which is not significant
		Debris deposition into watercourses increasing culvert blockage risk and flood risk resulting in minor beneficial impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Minor Beneficial which is not significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Debris deposition into watercourse/ ditch network increasing blockage risk and flood risk resulting in minor beneficial impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Minor Beneficial which is not significant
		Sedimentation of watercourse/ditch network impacting upon water quality resulting in negligible impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Negligible which is not significant
		Spillages of fuels and chemicals into watercourse/ditch network impacting upon water quality resulting in moderate adverse impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Negligible which is not significant
		Spillages of cements and concretes into watercourse/ditch network resulting in negligible impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Negligible which is not significant
		Inappropriate disposal of foul waste to watercourse/ditch network resulting in minor adverse impacts	Implementation of a CEMP which incorporates measures based on pollution prevention guidance good practice	Negligible which is not significant
	Completed development	Change to the Surface Water Drainage Network resulting in major beneficial impacts	None proposed above the embedded mitigation	Major Beneficial which is significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Changes to the foul network drainage resulting in negligible impacts	None required	Negligible which is not significant
		Changes to flood risk for the New Local Population resulting in moderate to major beneficial impacts	None proposed above the embedded mitigation	Moderate to Major Beneficial which is significant
		Changes to flood risk for the Existing Local Population resulting in moderate to major beneficial	None proposed above the embedded mitigation	Moderate to Major Beneficial which is significant
		Changes to surface water flood risk resulting in minor beneficial impacts	None proposed above the embedded mitigation	Minor Beneficial which is not significant
		Spillages of household chemicals and liquids into the surface water drainage network and bounding watercourses resulting in negligible impacts	None proposed above the embedded mitigation	Negligible which is not significant
Transport and Access	Demolition and Construction	Dust and dirt production from construction vehicles resulting in negligible to minor adverse effects	Implement measures within the CEMP	Minor adverse impact which is Not Significant
		Delay to road users resulting in negligible to moderate adverse effects.	Implement measures within the CEMP	Minor adverse impact which is Not Significant
		Effects on pedestrian/cycle amenity resulting in	Implement measures within the	Minor adverse impact which is

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		negligible to moderate adverse effects.	CEMP	Not Significant
		Effects on highway safety resulting in negligible to moderate adverse effects.	Implement measures within the CEMP	Minor adverse impact which is Not Significant
	Completed Development	Delay to road users resulting in negligible to minor adverse effects.	Implement Travel Plan	Negligible to minor adverse impact which is Not Significant
		Delay to pedestrians/cycles resulting in negligible to minor adverse effects.	Implement Travel Plan	Negligible to minor adverse impact which is Not Significant
		Effects on pedestrian/cycle amenity resulting in negligible effects.	Implement Travel Plan	Negligible impact which is Not Significant
		Effects on highway safety resulting in negligible effects.	Implement Travel Plan	Negligible impact which is Not Significant
Severance impacting on pedestrians/cyclists resulting in negligible impact.	Implement Travel Plan	Negligible impact which is Not Significant		
Air Quality and Dust	Demolition and Construction	Dust Soiling, Human Health and Amenity effects resulting in substantial potentially significant impacts	Measures outlined in the IAQM guidance to be included in the CEMP	Negligible which is Not Significant
	Completed Development	Existing Receptors - Human Health and Amenity effects resulting in negligible impacts which is not significant	Implementation of Best Practicable Measures (see Chapter 13: Air Quality and Dust)	Negligible which is Not Significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		Proposed Development Site Sensitive Receptors effects resulting in negligible impacts which is not significant	Not required	Negligible which is Not Significant
Noise and Vibration	Demolition and Construction	Construction Noise resulting in minor to moderate adverse impact which is significant.	Implementation of a CEMP which incorporates best practicable means for noise reduction	Minor adverse which is Not Significant for receptors within or bounding the development site. Receptors further from the Site will be subject to lesser impacts.
		Construction Vibration resulting in minor to major adverse impact which is significant.	Implementation of a CEMP which incorporates best practicable means for noise reduction	Negligible which is Not Significant
		Construction Generated Traffic resulting in a negligible impact which is not significant	None required	Negligible which is Not Significant
	Completed Development	Change in Road Traffic Noise resulting in negligible impact which is not significant	None required	Negligible which is Not Significant
		Transportation Sound Impact upon Proposed Receptors resulting in negligible to major impact which is significant	Good Acoustic Design and / or Mitigation Measures in the form of Acoustic Barriers and/or Alternative Ventilation, where required.	Negligible which is Not Significant
		Commercial Sound Impact upon Proposed Receptors resulting in negligible to moderate impact with which	Good Acoustic Design and / or Mitigation Measures in the form	Negligible which is Not Significant

Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		is significant	of Acoustic Barriers and/or Alternative Ventilation, where required.	Significant
		School Noise Impact upon Proposed Receptors resulting in negligible impact which is not significant	Good Acoustic Design and / or 80m buffer and / or Mitigation Measures in the form of Acoustics Barriers	Negligible which is Not Significant
		Proposed Fixed Plant upon Proposed and Existing Receptors resulting in negligible impact which is not significant	Good Acoustic Design and / or Mitigation Measures in the form of Acoustic Barriers and/or Alternative Ventilation, where required.	Negligible which is Not Significant
		Rail vibration effects on new residents resulting in negligible impact which is not significant	None required	Negligible which is Not Significant
Socio-economics	Demolition and Construction	A temporary increase in employment resulting in a moderate beneficial impact which is significant	None required	Moderate beneficial , which is Significant
	Completed Development	A permanent increase in the local population resulting in a moderate beneficial impact which is significant	None required	Moderate beneficial , which is Significant
		A permanent increase in the higher skilled population resulting in a moderate beneficial impact which is significant	None required	Moderate beneficial , which is Significant

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		A permanent increase in the housing stock resulting in a major beneficial impact which is significant	None required	Major beneficial , which is Significant
		A permanent increase in the number of primary & secondary school pupils resulting in a negligible impact which is not significant	None required	Negligible , which is Not Significant
		A permanent increase in demand for local health facilities resulting in a minor adverse impact which is not significant	None required. Any CIL payment could contribute to the provision of offsite expansion in local health care provision.	Minor adverse , which is Not Significant
Health	Demolition and Construction	synergistic effects on human health with regard to rural PRoW diversions and the presence of construction activities resulting in moderate adverse impacts	Implementation of a CEMP to include measures to protect biodiversity, control noise and dust and consider PRoW diversions.	Minor adverse which is not significant
		Stress and uncertainty during the planning and construction phases with an associated effect on community cohesion resulting in a moderate adverse impact	Programme of communication, further plans for involving the community.	Minor adverse which is not significant
	Completed Development	Noise impacts on future residents resulting in moderate adverse impact.	Good acoustic design at the detailed design stage of proposals in the form of consideration of the layout of the scheme, location and orientation of dwellings gardens and public open spaces, acoustic	No significant effects on human health anticipated

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			barriers, alternative ventilation, and higher specific glazing where necessary.	
		The urbanisation of a rural environment which was previously used by walkers and cyclists to access nature resulting in moderate adverse impacts.	Biodiversity, landscaping and footpath strategies to consider how local population will access nature.	Minor Adverse which is not significant
		Increased demand on healthcare services resulting in minor adverse impacts.	None required. Any CIL payment could contribute to the provision of offsite expansion in local health care provision.	Minor adverse which is not significant
Climate Change	Demolition and Construction	All Construction Activities resulting in moderate adverse effects.	Best Practice Construction Methods	Minor Adverse which is Significant
	Completed Development	Energy Efficiency of Buildings resulting in neutral effects.	Improved Fabric Efficiency and Deployment of Renewable Energy Technology	Minor Beneficial which is Significant
		Impacts from Soil Drying resulting in minor adverse effects	Good Design	Minor Adverse which is not significant
		Impacts from Temperature Increase resulting in moderate adverse effects	Good Design	Minor Adverse which is not significant
		Impacts from Relative Humidity resulting in moderate	Good Design	Minor Adverse which is not



Category	Stage of Development	Description of Potential Effects Including Significance	Mitigation Measures	Residual Effect Including Significance
		adverse effects		significant
		Impacts from Precipitation, Water Availability resulting in moderate adverse effects	Good Design	Minor Adverse which is not significant
		Impacts from Snow and Ice resulting in minor adverse effects	Good Design	Minor Adverse which is not significant
		Impacts from Gales, Storms, Extreme Weather resulting in moderate adverse effects	Good Design	Minor Adverse which is not significant
		Impacts from Solar Radiation resulting in moderate adverse effects	Good Design	Minor Adverse which is not significant
		Impacts from Cloud Cover resulting in minor adverse effects	Good Design	Minor Adverse which is not significant

- 19.4 In order to further minimise any potential disruption and disturbance to nearby sensitive receptors such as the local residents a CEMP developed in conjunction with SRBC and relevant consultees, has been recommended. The CEMP will outline how the effects of construction can be managed by good practice and environmental controls which are routinely and successfully applied on other similar development proposals.
- 19.5 In addition, a Framework Travel Plan (FTP), and a Material Management Plan (MMP), inclusive of Soil Management Plan (SMP) are proposed.

Summary and Conclusions

- 19.6 A comprehensive assessment of the potential effects of the construction and operational phases of the proposed development has been undertaken as part of this EIA to establish the environmental changes associated with the development.
- 19.7 The proposed development has been designed in accordance with the findings and recommendations of the EIA. Any adverse effects identified through the assessment have been minimised as far as possible through the design process or the application of appropriate mitigation measures. Those effects associated with the construction activities will be controlled by a CEMP.
- 19.8 Effects during demolition and construction period are considered to be short term **minor adverse or negligible** for the majority of impacts. Some **moderate-major adverse** and **major adverse** effects are anticipated with regards to landscape and visual amenity which are **significant**. However, these are anticipated to be short term and last the duration of the construction phase.
- 19.9 **Moderate** and **Major beneficial** effects are also anticipated during the construction phase with regards to improving flood risk on site and the creation of construction jobs. These effects are **significant**.
- 19.10 Potential environmental impacts of the completed development are predominantly **negligible**. There are some **moderate adverse impacts** identified at completed development stage relating to potential impact on landscape and visual amenity though these are not deemed to be significant. It is acknowledged that all emissions from the proposed development will contribute to the overall significant effect of climate change, it is considered that the proposed development has and will adopt an appropriate and reasonable level of mitigation and the residual effects should therefore be considered **Not Significant** for the purposes of this EIA. Overall, the majority of the completed development impacts are **Not Significant**. However, **significant beneficial** socio-economic impacts are anticipated as a result of the permanent increase in local population, higher skilled population and housing stock. **Significant beneficial** effects are also anticipated as a result of improvements to the surface water strategy on site.
- 19.11 The proposed development constitutes a sustainable, high quality development which accords with national and local planning policy. It will result in increased connectivity of the site within the surrounding area, ecological and

landscape enhancement onsite, significant improvements to flood risk on and off site, and significant economic benefits. Ultimately, the completed development will bring about a sympathetically designed development that contributes to the economic, social and environmental aspirations of the borough and wider region.