

The West Midlands Rail Freight Interchange Order 201X
ES - Vol 1 - Chapter 18: Summary of Residual Effects
Regulation 5(2)(a)
Ramboll - July 2018

18 SUMMARY OF RESIDUAL EFFECTS

- 18.1 Table 18.1 of this Chapter summarises the residual effects of the Proposed Development as reported across the technical assessments of the Final ES (Chapters 6 - 16).
- 18.2 Definitions regarding significance of residual effects are included in Chapter 2 of this ES (EIA Process and Methodology) and relevant ES Chapters (6-16). Some technical disciplines use discipline-specific guidance on the assessment of effects for EIA, and as such their terminology and criteria may differ from the definitions stated in Chapter 2 of this ES. The assessment methodology specific to each discipline is described in full within each technical chapter.

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Potential Effects	Mitigation Proposed	Means of Implementation	Residual Effect
CHAPTER 6: AGRICULTURE AND SOILS			
Construction			
Permanent sealing of agricultural land - 51.1 ha of Grade 2 Agricultural Land	Loss of agricultural land is unavoidable, therefore no mitigation has been proposed. The Proposed Development will be phased and so agricultural land will remain in use as long as possible.	N/A	Permanent Major Adverse at a national level
Permanent sealing of agricultural land – 121.9 ha of Subgrade 3a Agricultural Land			Permanent Major Adverse at a national level
Permanent sealing of agricultural land – 38.2 ha of Subgrade 3b Agricultural land			Permanent Minor Adverse at a national level
Permanent sealing of agricultural land – 85.7 ha of Non-Agricultural / Other Land			Permanent Negligible Adverse at a national level
Adverse effect of construction activities on quality and quantity of soil resources available on Site for reuse	Implementing appropriate techniques for stripping, storing and re-use of soils in accordance with best practice guidance, to be detailed within a Soil Resource Plan (SRP).	SRP as per Section 6 of the outline demolition and construction environmental management plan (ODCEMP), Technical Appendix 2.3, to be part of the demolition and construction environmental management plan (DCEMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Minor Adverse
Permanent reduction in area (ha) of agricultural land within holding of Somerford Home Farm	No mitigation proposed.	N/A	Permanent Moderate Adverse at a local level
Extinguishment of agricultural holding in Phase 4 and Phase 5 (all low sensitivity) at Heath Farm	No mitigation proposed.	N/A	Permanent Minor Adverse
Extinguishment of agricultural holding / land parcels (all low sensitivity) at Holdings A,B,C,D,E,F,G,H,I,J and K	No mitigation proposed.	N/A	Permanent Minor Adverse
Completed Development			
Agricultural Land	N/A	N/A	No operational effects predicted
Soil Resources	N/A	N/A	No operational effects predicted

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Agricultural Holdings	N/A	N/A	No operational effects predicted
CHAPTER 7: AIR QUALITY			
Construction			
Effect of construction traffic on residential receptors adjacent to road network	Best Practice as set out in the ODCEMP.	Implementation of a DMP, as per Section 9 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Effect of construction dust on residential receptors adjacent to Site	Best Practice as set out in the ODCEMP.	Implementation of a DMP, as per Section 9 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible to Slight Adverse
Effect of construction dust on Canal moorings and canal towpath	Best Practice as set out in the ODCEMP.	Implementation of a DMP, as per Section 9 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible to Slight Adverse
Completed Development			
Effect of operational traffic on residential receptors adjacent to road network	Measures to reduce vehicle movements and potential congestion (and hence reduce potential air emissions) are outlined in a Sustainable Transport Strategy included as an appendix to the Transport Assessment (Technical Appendix 15.1).	Implementation of the Sustainable Transport Strategy to secured as part of S.106 Agreement.	Permanent Negligible to Slight Adverse
Effect of operational traffic on ecological receptors			Permanent Not Insignificant (assessed further in Chapter 10: Ecology and Nature Conservation)
CHAPTER 8: ARCHAEOLOGY			
Construction			
Possible Neolithic ring ditch and linear feature (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements	If the feature is present, Permanent Moderate Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
		at Schedule 2 of the draft DCO.	
Possible Bronze Age ring ditch (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	If the feature is present, Permanent Moderate Adverse
Remains associated with Romano-British occupation and other forms of activity (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	If the feature is present, Permanent Moderate or Minor Adverse depending on confirmed nature of asset
Remains associated with the Anglo-Saxon and medieval occupation of Gailey (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Moderate (if Saxon) or Minor Adverse, depending on confirmed nature of asset Permanent Minor to Moderate Adverse
Remains derived from medieval cultivation (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Remains associated with post-medieval agricultural practices (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought	Not significant

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
		forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	
Remains associated with the construction and use of the Staffordshire and Worcestershire Canal and the Grand Junction Railway located within the Site. (Reduction in the significance of effect on the receptor through preservation by record, partially offsetting the loss of archaeological remains through increased knowledge of past human activity)	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Remains associated with the large curving ditch feature identified during LiDAR data assessment	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Remains associated with the seven anomalies of possible archaeological origin identified during the detailed	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Remains associated with the linear ditch feature representing possible continuation of post-medieval, or earlier, track/routeway	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Remains associated with the seven anomalies of possible archaeological origin identified during the detailed gradiometer survey	Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline	Permanent Minor Adverse

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		WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	
Other as-yet unidentified buried archaeological remains	If encountered, Measures in the Outline Written Scheme of Investigation (WSI) (as presented as Technical Appendix 8.5).	Further specific WSIs will be prepared (based on the principles of the Outline WSI) in respect of detailed design proposals that will be subsequently brought forward for specific phases/plots, as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	To be determined, would depend on the remains.
Completed Development			
No effects predicted	None proposed.	N/A	No effects predicted
CHAPTER 9: CULTURAL HERITAGE			
Construction			
Potential increases in activity affecting the local road network including impacts of noise, dust and vibration associated with demolition and Site works on cultural heritage	Following industry best practice construction standards, i.e. appropriate hoarding or fencing / site lighting Careful construction in relation to adjacent historic bridge, and any necessary remedial/restorative works.	Implementation of measures in the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Minor Adverse
Demolition of Heath Farm (Locally listed Grade B)	Historic Building Recording and the information stored in an appropriate archive.	As secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Completed Development			
Change to the setting of the conservation area, with mitigation measures to improve the character, appearance, and interpretation of the heritage receptor (section within Order Limits)	Works to improve the landscape along parts of the canal. As part of the Proposed Development, redundant pipes which span the canal will be removed.	As secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Change to the setting of the conservation area, with mitigation measures to improve the character, appearance, and interpretation of the heritage receptor at Staffordshire and Worcestershire Canal Conservation Area (as a whole)		As secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Negligible
Demolition of Heath Farm	Historic Building Recording and the information stored in an appropriate archive.	As secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Demolition of Woodside Farm	Historic Building Recording and the information stored in an appropriate archive.	As secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Negligible

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Change of setting of the non-designated receptor of Straight Mile Farm.	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at Two Roman Camps north of Water Eaton	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at Roman Fort west of Eaton House	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at Roman Camp, Kinvaston	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at Roman camp north east of Stretton Mill	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at site of Pennocrucium east of Stretton Bridge	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at Roman villa 300yds (270m) NW of Engleton Hall	None proposed.	N/A	No effect
No change to the setting of the Scheduled Ancient Monument at Rodbaston Old Hall moated site and fishpond	None proposed.	N/A	No effect
No change to the setting of the Grade I listed building at Church of St Mary and St Chad	None proposed.	N/A	No effect
No change to the setting of the Grade II* listed building at Westgate, forecourt wall and gate	None proposed.	N/A	No effect
No change to the setting of the Grade II* listed building at Somerford Hall	None proposed.	N/A	No effect
No change to the setting of the Grade II* listed building at Stretton Hall with combined service and stable wing	None proposed.	N/A	No effect
No change to the setting of the Grade II* listed building at Church of St John Stretton	None proposed.	N/A	No effect
No change to the setting of the Grade II* listed building at Church of St Mark and St Luke Shareshill	None proposed.	N/A	No effect
No change to the setting of the Grade II* Registered Park and Garden at Chillington	None proposed.	N/A	No effect
Change to the setting of the non-designated receptor of Canal Bridge at Gravelly Way	None proposed.	N/A	Permanent Negligible
Change to the setting of the Grade II listed building at Round House	None proposed.	N/A	Permanent Negligible
Change to the setting of the Grade II listed building at Wharf Cottage			Permanent Negligible
Change to the setting of the locally listed building at Gailey Lock and Gailey Bridge			Permanent Negligible
Change to the setting of the locally listed building at Gailey Wharf			Permanent Negligible
No change to the setting of the Grade II listed building at Aspley Farmhouse			Permanent Negligible
Change to the setting of the locally listed building at Long Moll's Bridge			Permanent Negligible
Change to the setting of the locally listed building at Deepmore Bridge			Permanent Negligible
Change to the setting of the locally listed building at Calf Heath Bridge			Permanent Negligible

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No change to the setting of the locally listed building at Brick Kiln Lock	None proposed.	N/A	No effect
No change to the setting of the locally listed building at Boggs Lock			No effect
No change to the setting of the non-designated heritage receptor at Canal Feeder			No effect
Change to the character of the historic landscape character	None proposed.	N/A	Permanent Negligible
Change to the character of the historic hedgerows	None proposed.	N/A	Permanent Negligible
CHAPTER 10: ECOLOGY AND NATURE CONSERVATION			
Construction			
Habitat - Significant effect from loss of veteran trees and time required to replace	Creation of interim habitat, creation of Community Parks early in the development, habitat creation to address local BAP targets including meadows, woodland, hedgerows, trees and ponds, translocation of important hedgerows where possible, implementation of mitigation strategy for native black poplar and adoption of an EMMP in all construction phases.	Parameter Plans and implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Significant Adverse at a Local scale
Farmland birds – significant effect due to removal of breeding habitat for breeding birds	Design to avoid valuable habitat for birds, enhancement of retained habitat (including creation of Community Parks), creation of new habitat (including arable/set aside habitat), provision of bird nesting opportunities, provision of interim habitats during the construction phase and adoption of an EMMP to address direct effects on nesting activity (directly or from noise and lighting).	Parameter Plans and implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO. Measures include the provision of 12 ha of existing intensively managed arable farmland off-site (within 1 km) which will be enhanced and managed for the benefit of farmland birds.	Permanent Significant Adverse at a Local scale
Invertebrates - Significant effect on assemblage of invertebrates while vegetation and enhancements establish	Retention of trees of greatest value and any fallen deadwood. Provision of shallow ephemeral ponds and ponds managed for biodiversity with lush vegetated (native) margins and ponds that retain some water all year round.	Implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by	Temporary Significant Adverse at a Site scale

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
	<p>Foraging areas to be created in the redeveloped Site such as areas of wildflower meadows.</p> <p>Provide southerly aspect, bare sandy exposures adjacent foraging areas for ground-nesting bees and wasps.</p>	<p>the draft DCO Requirements at Schedule 2 of the draft DCO.</p>	
<p>Bats - Significant effect due to the time taken for vegetation in green corridors and providing screening to mature and sufficiently establish to provide a fully functional habitat resource for bats</p>	<p>Provision of compensatory roost resource in the form of bat boxes (Minimum 120) and enhancements to three retained buildings.</p> <p>Construction and felling activities to be undertaken where possible in September/October, to avoid maternity and hibernation seasons when bats are most vulnerable to disturbance.</p> <p>Construction activity that creates noise, vibration or emits light within 30m of known roosts, hedgerows and woodland will cease at sunset (Between March and September), if not before, to avoid delaying the emergence of locally roosting bats. Construction activity will not commence again until after sunrise to ensure that impacts to bats returning to local roosts does not occur.</p> <p>The Community Parks will be created as soon as practically possible and will be designed to provide a range of native habitats including substantial areas of open water, species rich grassland, native woodland, hedges and scrub.</p> <p>The proposed planting schedule will include extensive habitats that can provide benefit for bats either by providing a food source for insects or roost potential.</p> <p>Ponds to be managed for biodiversity should be provided as suitable habitat for a range of invertebrates, which will, in turn, benefit bats. The ponds will be planted with native aquatic species.</p>	<p>Implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.</p>	<p>Temporary Significant Adverse at a Local scale</p>
<p>Badger – hazards associated with traffic and associated mortality</p>	<p>See Confidential Technical Appendix 10.2.</p>	<p>--</p>	<p>Permanent Significant Adverse at a Local scale</p>
Completed Development			
<p>Habitats – Native black poplar</p>	<p>Securing long term provision of native black poplar on-site.</p>	<p>Implementation of principles within the Arboricultural Assessment, Technical Appendix 12.7 as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.</p>	<p>Permanent Significant Beneficial at a County scale</p>

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
<p>Birds - Change of habitat available compared with baseline, noise effects on the assemblage of bird species important at the local level offset by habitat improvement/creation. Habitat intended for additional species of conservation concern would be provided but there would be a significant effect due to uncertainties relating to effectiveness of habitat improvements and management</p>	<p>Sensitive lighting and noise mitigation measures maintained in the long term to ensure continued effectiveness, operational controls to minimise noise effects, maintenance of developed plots with birds taken into account (i.e. in buildings and facilities management to avoid impacts on nesting birds), management of green infrastructure and community parks to maintain their ecological value in the long term and controls on activity such as fences to restrict access to certain areas and management of the community parks.</p>	<p>Implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO. Lighting Strategy as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.</p>	<p>Permanent Significant Adverse at a Site scale</p>
<p>Water birds - provision of significant areas of open water in the completed development phase, managed for the benefit of water birds</p>	<p>Included as part of the Proposed Development and details to be included in the EMMP.</p>	<p>Implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.</p>	<p>Permanent Significant Beneficial at a Local scale</p>
<p>Invertebrates - significant effect providing enhanced habitats for invertebrates relative to those in the local area managed for biodiversity in the long term</p>	<p>Sensitive lighting and maintenance of as dark corridors. Management of habitats created of value to invertebrates to be delivered through the EMMP e.g. providing a succession of old trees across the landscape to benefit saproxylic species and the management of areas of wildflower whereby some areas of vegetation are left uncut every year to provide overwintering habitat.</p>	<p>Implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO. Lighting Strategy as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.</p>	<p>Permanent Significant Beneficial at a Local scale</p>
<p>Bats - significant effect owing to preliminary lighting strategy to be developed further for the impact on roosting, foraging and commuting bats. Current preliminary findings indicate that with anticipated mitigation in place the magnitude of impact of lighting on bats would likely reduce removing this significant residual effect once finalised</p>	<p>A comprehensive lighting strategy and assessment pre-development lighting assessment will be undertaken building upon the strategy. Lighting should will be minimised as far as is practical and should will be directed away from known roosts, installed roosting features, retained and planted habitats, the canal and the adjacent Calf Heath Reservoir LWS. Dark corridors should will be created along key areas of green</p>	<p>Implementation of principles within the framework ecological mitigation and management plan (FEMMP), Technical Appendix 10.4, to be part of a development phase specific ecological mitigation and management plan (EMMP) as secured by the draft DCO Requirements at Schedule 2 of the draft DCO. Lighting Strategy as</p>	<p>Permanent Significant Adverse at a Local scale</p>

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	<p>infrastructure and habitats such as the canal. Where illumination is unavoidable, measures have been suggested to avoid disrupting bat commuting corridors, foraging areas and any roosting bats present.</p> <p>Noise bunds along boundaries of development plots to minimise noise disturbance.</p>	secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	
Badger	See Confidential Technical Appendix 10.2.	--	--
CHAPTER 11: GROUND CONDITIONS			
Construction			
Risks from direct contact and inhalation of ground contamination on Human Health – Construction Workers / off-site residential properties / on-site and off-site commercial land usage occupants	<p>Use of appropriate working procedures and personal protective equipment in accordance with Health and Safety requirements and as set out in ODCEMP.</p> <p>Implementation of safe working practices and environmental mitigation measures such as dust suppression techniques.</p> <p>Appropriate mitigation measures, such as damping down and cleaning roadways shall be undertaken throughout the works, whilst also giving due regard to minimisation of surface water runoff.</p>	Measures as per Section 5 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible to Minor Adverse
Leaching and migration of contaminants associated with the Proposed Development via groundwater, including underlying groundwater source protection zones II and III and surface watercourses	<p>Redundant boreholes shall be appropriately decommissioned. The method of decommissioning shall accord with Environment Agency guidance.</p> <p>Storage of oils and chemicals in bunded areas in order to contain any spillages. Secondary containment would be in accordance with requirements of relevant regulations.</p> <p>A periodic watching brief shall be maintained throughout the works in order to identify and address any further contamination.</p>	Measures as per Section 5 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Minor Adverse
Potential reduction in remediation efficiency / operation for ongoing Remediation Works	Adopt measures to safeguard remediation works implemented as per Remediation Safeguarding Report (Technical Appendix 11.5).	Detailed remediation safeguarding method statement as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Minor to Moderate Adverse
Risks of degradation of the SSSI through dust / vapour release on off-site Geological Site of Special Scientific Interest (SSSI)	Appropriate mitigation measures, such as damping down and cleaning roadways shall be undertaken throughout the construction works, whilst also giving due regard to minimisation of surface water runoff.	Measures as per outlined in the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse

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Completed Development			
Residual risks from direct contact and inhalation of ground contamination on Human Health - Site Workers and Public access	Provision of a clean layer of topsoil in areas of soft landscaping and ground level as required. Appropriate ground gas and vapour mitigation measures shall be installed in accordance with current UK Authoritative Guidance and British Standards.	Contamination mitigation measures as secured by the draft DCO Requirements at Schedule 2 of the draft DCO, which comprises any remedial measures to be taken to render the land fit for its intended purpose (and include details of a verification plan).	Temporary Negligible Adverse
Leaching and migration of contaminants associated with the Proposed Development via groundwater on Controlled Waters – Groundwater, including underlying groundwater source protection zones II and III and surface watercourses	Occupants during the operation phase will ensure that fuels / oils are contained in accordance with recognised good practice in terms of containment and spill prevention.	Storage of fuels / oils to comply with the Control of Pollution (Oil Storage) Regulations 2001.	Temporary Minor Adverse
Potential reduction in remediation efficiency / operation for ongoing Remediation Works (during operation of rail terminal)	Adopt measures to safeguard remediation works.	Detailed remediation safeguarding method statement as secured by the draft DCO Requirements at Schedule 2 of the draft DCO, which comprises any remedial measures to be taken to render the land fit for its intended purpose (and include details of a verification plan).	Temporary Minor to Moderate Adverse
CHAPTER 12: LANDSCAPE AND VISUAL			
Construction - Landscape			
Site Landscape Character (including Sensitivity Study LCP` s FAE01-03)	In the context of the landscape and visual assessment, primary mitigation measures and considerations have been incorporated as an integral (or 'embedded') part of the design and layout of the Proposed Development.	N/A	Temporary Moderate to Major Adverse
Site Landscape Features – Woodland/ Trees/ Hedgerows Loss of existing woodland, trees and hedgerows, including approximately two thirds of Calf Heath Wood	Well managed and controlled site activities and the application of good practices throughout the construction process will minimise the potential adverse effects arising from construction, detailed as part of the DCEMP. This will include the protection of all trees and vegetation to be retained in accordance with BS5837:2012.	Measures as per outlined in the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Moderate to Major Adverse
Site Landscape Context (County Scale Landscape Character Types)	In the context of the landscape and visual assessment, primary mitigation measures and considerations have been incorporated as an integral (or 'embedded') part of the	N/A	Temporary Minor Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
	design and layout of the Proposed Development.		
Cannock Chase AONB	In the context of the landscape and visual assessment, primary mitigation measures and considerations have been incorporated as an integral (or 'embedded') part of the design and layout of the Proposed Development.	N/A	Temporary Minor Adverse
Staffordshire and Worcestershire Canal	In the context of the landscape and visual assessment, primary mitigation measures and considerations have been incorporated as an integral (or 'embedded') part of the design and layout of the Proposed Development.	N/A	Temporary Moderate Adverse
Construction - Visual			
Settlement and Properties (Near Views) - Generally close positions and mix of relatively clear and more restricted views; generally to the nearest construction activity. Typically scattered groups and not large numbers or extensive settlement areas	Effects minimised through design. No further mitigation proposed. The phased and early implementation of some of the outer and perimeter landscape and associated earthworks proposals will assist in minimising the resulting visual effects.	N/A	Temporary Minor /Moderate to Major Adverse
Settlement and Properties (Distant Views) - Generally distant positions and mix of more expansive and restricted views over a varied landscape. Views generally confined to construction of the highest parts of the buildings. Lower level construction activity effectively screened by wooded context	Effects minimised through design. No further mitigation proposed. The phased and early implementation of some of the outer and perimeter landscape and associated earthworks proposals will assist in minimising the resulting visual effects.	N/A	Temporary Minor / Minor to Moderate Adverse
Highways/ Roads A5, Croft Lane, A449, Station Drive, Vicarage Rd, Straight Mile - Generally close positions and mix of relatively clear and more restricted views; generally to the nearest construction activity	Effects minimised through design. No further mitigation proposed.	N/A	Temporary Minor to Moderate / Major Adverse
PROW/ Footpaths Canal Towpath - Varying views though generally limited stretches of the canal. Most notable effects between Gailey Marina and Gravelly Way bridge with proposed bridge and nearest buildings under construction	Effects minimised through design. No further mitigation proposed.	N/A	Temporary Moderate to Major Adverse
PROW/ Footpaths Shoal Hill footpaths/ open space - Distant (approx. 3km) and elevated views to construction of the highest parts of the buildings. Visible within an active, varied and lower lying wooded context. Lower level construction activity effectively screened by wooded context	Effects minimised through design. No further mitigation proposed.	N/A	Temporary Moderate Adverse
PROW/ Footpaths Generally - Generally a limited number of PROW within and surrounding the Site. Limited and varying views generally towards construction of the higher parts of the buildings	Effects minimised through design. No further mitigation proposed.	N/A	Temporary Minor to Moderate Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Other Calf Heath Reservoir - Close clear views to nearest construction activities to the west; visible in the context of the A5 traffic and Junction 12	Effects minimised through design. No further mitigation proposed.	N/A	Temporary Moderate to Major Adverse
Completed Development – Landscape			
Site Landscape Character (including Sensitivity Study LCP` s FAE01-03) - Direct effect upon the character of the Site landscape. Maturing and management of extensive landscape and GI proposals will reduce effects over time	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Moderate Adverse
Site Landscape Features – Woodland/ Trees/ Hedgerows - Direct effect and loss of existing woodland, trees and hedgerows, including approximately two thirds of Calf Heath Wood. Notable new woodland, tree, hedgerows and other planting and comprehensive management	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor Adverse to Negligible
Site Landscape Context (County Scale Landscape Character Types) - Direct and Indirect effect upon the character of the Site landscape context. Maturing and management of extensive landscape and GI proposals will reduce effects over time	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor Adverse
Cannock Chase AONB - Indirect effect upon the character and special qualities of the AONB landscape	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor Adverse
Staffordshire and Worcestershire Canal	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor to Moderate Adverse
Completed Development - Visual			
Settlement and Properties (Near Views) - Generally close positions and mix of relatively clear and more restricted views. Maturing and management of extensive landscape and GI proposals will increasingly screen and filter views and reduce effects over time	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor to Moderate/Major Adverse
Settlement and Properties (Distant Views) - Generally distant positions and mix of more expansive and restricted views over a varied landscape. Views generally confined the highest parts of the buildings. Lower level activity effectively screened by wooded context	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor to Minor / Moderate Adverse
Highways/ Roads A5, Croft Lane, A449, Station Drive, Vicarage Rd, Straight Mile - Generally close positions and mix of relatively clear and more restricted views; generally to the nearest construction activity	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor to Moderate Adverse
PROW/ Footpaths Canal Towpath - Varying views though generally limited stretches of the canal. Most notable effects between Gailey Marina and Gravelly Way bridge with proposed bridge and nearest buildings under construction	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Moderate Adverse
PROW/ Footpaths Shoal Hill footpaths/ open space - Distant (approx. 3km) and elevated views to construction of the highest parts of the buildings. Visible within an active, varied and lower lying wooded context. Lower level construction activity effectively screened by wooded context	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Moderate Adverse
PROW/ Footpaths Generally - Generally a limited number of PROW within and surrounding the Site. Limited and varying views generally towards construction of the higher parts of the buildings	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Minor to Minor/ Moderate Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Other Calf Heath Reservoir - Close clear views to nearest construction activities to the west; visible in the context of the A5 traffic and Junction 12	Effects minimised through design. No further mitigation proposed.	N/A	Permanent Moderate Adverse
Chapter 13: Noise and Vibration			
Construction			
Creation of construction noise on residential receptors around the Site	Best Practicable Means, as set out in ODCEMP.	Measures as per Section 8 in the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Moderate to Major Adverse
Creation of construction vibration on Avenue Cottages, Denson House, Gailey House, High Clere, Roundabout Cottages, and Wood View, plus Heath Farm, Woodside Farm and residential properties at the intersection of Vicarage Road / Straight Mile, that are likely to remain occupied during some part of the construction works	Best Practicable Means, as set out in ODCEMP.	Measures as per Section 8 in the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Moderate Adverse
Creation of construction noise on canal moorings	Best Practicable Means, as set out in ODCEMP.	Measures as per Section 8 in the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Moderate Adverse
Completed Development			
On-site operational noise on residential receptors around the site	Incorporation of significant landscaped mounding. Provision of bespoke noise insulation scheme.	Incorporated into Proposed Development. Noise insulation scheme to be secured under a s.106 Agreement.	Permanent Moderate Adverse
On-site operational noise on canal moorings and towpath	Incorporation of significant landscaped mounding. Provision of bespoke noise insulation scheme.	Incorporated into Proposed Development. Noise insulation scheme to be secured under a s.106 Agreement.	Permanent Moderate Adverse
Increase in road traffic noise on one property along Vicarage Road between Site and A5	Incorporation of significant landscaped mounding. Provision of bespoke noise insulation scheme.	Incorporated into Proposed Development. Noise insulation scheme to be secured under a s.106 Agreement.	Permanent Moderate Adverse
Increase in road traffic noise on receptors along along A5 between Site access and M6	Incorporation of significant landscaped mounding. Provision of bespoke noise insulation scheme.	Incorporated into Proposed Development. Noise insulation scheme to be secured under a s.106 Agreement.	Permanent Moderate Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Chapter 14: Socio-economics and Health			
Construction			
Construction and demolition employment	Not applicable – beneficial effects identified.	Not applicable – beneficial effects identified.	Temporary Minor Beneficial
Wider economic effects of construction and demolition			Temporary Minor Beneficial
Effects on local businesses organisations and clubs during demolition and construction	No mitigation proposed.	N/A	Temporary Neutral to Minor Adverse
Recreation and amenity effects during demolition and construction	No mitigation proposed.	N/A	Temporary Minor Adverse
Human health effects during demolition and construction	No mitigation proposed.	N/A	No significant effects identified
Completed Development			
Operational employment (local, district, SSLEP)	Not applicable – beneficial effects identified.	Not applicable – beneficial effects identified.	Permanent Major Beneficial
Operational employment (TTWA)			Permanent Minor Beneficial
Wider economic effects of operation (local, district, SSLEP)			Permanent Major Beneficial
Wider economic effects of operation (national)			Permanent Minor Beneficial
Effects on local businesses during operation	No mitigation proposed.	N/A	Neutral
Recreation and amenity effects during operation	The delivery of a two new Community Parks.	As secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Minor Adverse
Human health effects during operation	No mitigation proposed.	N/A	No significant effects identified
Chapter 15: Transport and Access			
Construction			
Changes in traffic flows/transport infrastructure resulting effect on severance	The construction traffic will be managed through the Demolition Construction Traffic Management Plan (DCTMP), an appendix to the Transport Assessment (Technical Appendix 15.1) .	DCTMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	No significant effects identified
Changes in traffic flows/transport infrastructure with resulting effect on driver stress			No significant effects identified
Changes in traffic flows/transport infrastructure and introduction of diversions with resulting effect on driver delay			No significant effects identified
Changes in traffic flows/transport infrastructure with resulting effect on pedestrian delay and amenity			No significant effects identified
Changes in traffic flows/transport infrastructure with effect on cyclist delay and amenity			No significant effects identified
Changes in traffic flows/transport infrastructure with resulting effect on fear and intimidation			No significant effects identified
Changes in traffic flows/transport infrastructure with resulting effect on risk of accidents and safety			No significant effects identified

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Impact of the construction of the off-site highway works	The construction traffic will be managed through the Demolition Construction Traffic Management Plan (DCTMP), an appendix to the Transport Assessment (Technical Appendix 15.1) .	DCTMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Minor Adverse
Interim Development			
Changes in traffic flows/transport infrastructure resulting effect on severance	<p>A number of mitigation measures are proposed including:</p> <ul style="list-style-type: none"> •An improved public bus service as well as private shuttle buses for employees; •Site Wide HGV Management Plan (SWHGVMP) is included as an Appendix to the TA (Technical Appendix 15.1), including: <ul style="list-style-type: none"> - Early arrival bays; and - Vehicle booking system. •Site Wide Travel Plan (SWTP is included as an Appendix to the TA (Technical Appendix 15.1)) to encourage a reduction in single occupancy car journeys. 	Secured through DCO Requirements or s.106 Agreement.	Temporary Negligible to Minor Adverse significance
Changes in traffic flows/transport infrastructure with resulting effect on driver stress			Temporary Minor Adverse significance
Changes in traffic flows/transport infrastructure with resulting effect on pedestrian delay and amenity			Temporary Negligible to Minor Adverse significance
Changes in traffic flows/transport infrastructure with effect on cyclist delay and amenity			Temporary Minor Adverse significance
Changes in traffic flows/transport infrastructure with resulting effect on fear and intimidation			Temporary Minor Adverse significance
Changes in traffic flows/transport infrastructure with resulting effect on risk of accidents and safety			Temporary Minor Adverse significance
Completed Development			
Changes in traffic flows/transport infrastructure resulting effect on severance	<p>A number of mitigation measures are proposed including:</p> <ul style="list-style-type: none"> • Adopted public highway through the Site between the A5 and A449 to improve performance and provide resilience at Gailey Roundabout; • Closure of Crateford Lane to westbound traffic; 	Secured through DCO Requirements or s.106 Agreement.	From Permanent Negligible / Minor to Minor / Moderate Adverse through to Permanent Negligible to Minor Beneficial

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Changes in traffic flows/transport infrastructure with resulting effect on driver stress and delay	<ul style="list-style-type: none"> Banned right turn into Station Drive from the A449; Site Wide HGV Management Plan, including: <ul style="list-style-type: none"> Enforcement to prevent Proposed Development HGVs from using the A449 north of Gailey Roundabout through Penkrige, except for local access; Early arrival bays; Vehicle booking system; Sustainable Transport Strategy to include:		From Permanent Negligible / Minor to Minor / Moderate Adverse through to Minor to Minor/Moderate Beneficial
Changes in traffic flows/transport infrastructure with resulting effect on pedestrian delay and amenity	<ul style="list-style-type: none"> Provision of new and extended bus services which could include: <ul style="list-style-type: none"> Increase frequency and divert existing services; New shuttle buses between employee clusters and the Site, anticipated to be to Cannock Chase, Walsall and Wolverhampton; New and improved pedestrian and cycle facilities including: <ul style="list-style-type: none"> Upgrade the existing shared use cycle/footway to a 3m wide shared cycle/footway along the east of the A449 between Gailey Roundabout and the junction with Station Drive to the south; Provide pedestrian crossing facilities at the proposed A449 site access roundabout to facilitate access to bus facilities on the west side; Upgrade the existing footway to the west of the A449 in the vicinity of the proposed Site access roundabout to provide a width of 2m; 		From Permanent Negligible / Minor to Minor Adverse through to Negligible / Minor to Minor Beneficial
Changes in traffic flows/transport infrastructure with effect on cyclist delay and amenity	<ul style="list-style-type: none"> Provision of new and extended bus services which could include: <ul style="list-style-type: none"> Increase frequency and divert existing services; New shuttle buses between employee clusters and the Site, anticipated to be to Cannock Chase, Walsall and Wolverhampton; New and improved pedestrian and cycle facilities including: <ul style="list-style-type: none"> Upgrade the existing shared use cycle/footway to a 3m wide shared cycle/footway along the east of the A449 between Gailey Roundabout and the junction with Station Drive to the south; Provide pedestrian crossing facilities at the proposed A449 site access roundabout to facilitate access to bus facilities on the west side; Upgrade the existing footway to the west of the A449 in the vicinity of the proposed Site access roundabout to provide a width of 2m; 		From Permanent Negligible / Minor to Minor Adverse through to Negligible / Minor to Minor Beneficial

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
<p>Changes in traffic flows/transport infrastructure with resulting effect on fear and intimidation</p>	<ul style="list-style-type: none"> - Alter the existing footway adjacent to the north of the A5 between Gailey Roundabout and the proposed site access to provide, where feasible, a 3m wide shared cycle/footway; - Provide a 2m footway to the south of the A5 to connect the Proposed Development to Gailey Marina; - Provide pedestrian crossing facilities at the proposed A5 site access roundabout; 		<p>Permanent Negligible / Minor to Minor / Moderate Adverse</p>
<p>Changes in traffic flows/transport infrastructure with resulting effect on risk of accidents and safety</p>	<ul style="list-style-type: none"> - Provide a 3m along the section of Vicarage Road on the general arrangement drawings; - Provide 3m wide cycleways / footways adjacent to the roads through the site; - Provide a network of permissive paths within the areas of public open space. Crossing facilities would be provided across Straight Mile plus footway improvements would be provided at the junction of Straight Mile / Kings Lane / Woodlands Lane in order to allow access to these permissive paths; and - Improvements to the canal tow path to provide a bound / compacted gravel surface which can support an increase in use and connectivity to the footpaths. <p>Site Wide Travel Plan to encourage a reduction in single occupancy car journeys. This will be achieved using measures such as:</p> <ul style="list-style-type: none"> • Appointment of a Travel Plan Co-ordinator; • Development of a smart phone app to provide information on bus times and capacity; • Provision of sustainable travel information packs for employees; 		<p>From Permanent Negligible to Minor Adverse through to Negligible / Minor Beneficial</p>

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
	<ul style="list-style-type: none"> Personalised travel planning for employees; Travel Plan website and social media feeds; Bus taster tickets; Employee discounts for bus services or sustainable transport related purchases; Car sharing portal; Staggered working hours; and Remote / home and flexible working. 		
Chapter 16: Water Environment and Flood Risk			
Construction			
Increase in surface water flood risk to Site users	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Increase in surface water flood risk to downstream receptors	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Increase in surface water flood risk; adverse impact of surface water pollution on construction workers	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Increase in surface water flood risk; surface water pollution to the River Penk, Saredon Brook & Tributaries	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Increase in surface water flood risk; surface water pollution to surface water drainage ditches & land drains	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements	Temporary Negligible Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
		at Schedule 2 of the draft DCO.	
Risk of surface water pollution to ponds	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent / Temporary Negligible Adverse
Surface water pollution to Staffordshire and Worcestershire Canal & Hatherton Canal	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Surface water pollution to Calf Heath & Gailey Reservoirs	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Impact upon local supply; damage to infrastructure (water supply)	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Damage to infrastructure; surface water pollution, increase in surface water flood risk on sewerage infrastructure	Best Practicable Means, as set out in ODCEMP including standard mitigation compliant with Environment Agency Guidance.	Measures as per Section 12 of the ODCEMP, Technical Appendix 2.3, to be part of the DCEMP as secured by the draft DCO Requirements at Schedule 2 of the draft DCO.	Temporary Negligible Adverse
Completed Development			
Increase in surface water flood risk to Site users/occupants	Adoption of sustainable drainage system (SuDS) measures and detailed drainage design to be submitted and approved in advance of works.	Measures as per Flood Risk Assessment (Technical Appendix 16.1), Water Framework Directive Assessment (Technical Appendix 16.2) and Drainage Strategy (Technical Appendix 16.3) to be part of the Surface Water Drainage Scheme and Foul Water Drainage Scheme as secured	Permanent Negligible Adverse
Increase in surface water flood risk to downstream receptors	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse
Increase in surface water flood risk to the proposed Development buildings & infrastructure	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse

Table 18.1: Summary of Potential Effects of Proposed Development, Mitigation and Residual Effects			
Increase in surface water flood risk; risk of surface water pollution to the River Penk, Saredon Brook & Tributaries	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.	by the draft DCO Requirements at Schedule 2 of the draft DCO.	Permanent Negligible Adverse
Increase in surface water flood risk; risk of surface water pollution to surface water drainage ditches & land drains	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse
Risk of surface water pollution to ponds	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse
Risk of surface water pollution to Staffordshire and Worcestershire Canal & Hatherton Canal	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse
Risk of surface water pollution to Calf Heath & Gailey Reservoirs	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse
Impact upon local water supply	N/A		Permanent Negligible Adverse
Impact upon local network capacity	Adoption of SuDS measures and detailed drainage design to be submitted and approved in advance of works.		Permanent Negligible Adverse