

Environmental Statement
Addendum – Non Technical
Summary
Keyland

Land at former North Bierley WWTW

November 2017

Turley

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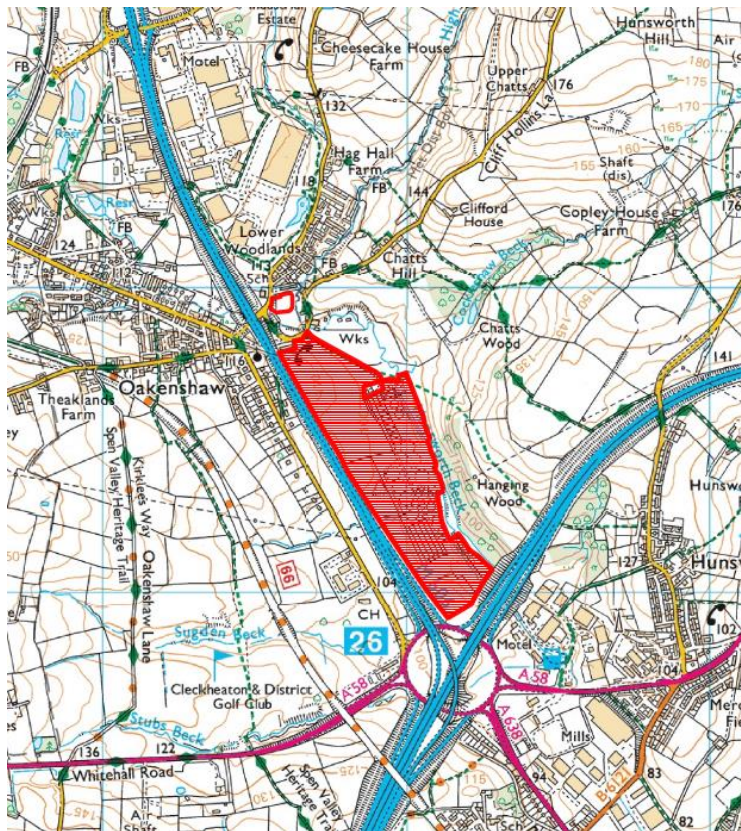
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1. Introduction

- 1.1 In July 2016 Keyland ("the applicant") has applied to Kirklees Metropolitan Borough Council (KMBC) and the City of Bradford Metropolitan District Council (BMDC) for outline planning permission to redevelop the former Yorkshire Water waste water treatment works (WWTW) and adjacent agricultural land to provide new industrial/warehouse buildings and residential development with associated demolition, landscaping, off site road improvements and school car parking area. All matters are reserved except for points of access.
- 1.2 Following feedback during the planning application process **the proposal has been changed to remove residential development** from the scheme. The scheme is now for new industrial and warehouse units with associated demolition, landscaping, off site highway improvements, drainage ponds and a new school car park for Woodlands CofE School.
- 1.3 The site plan below shows the proposed application area in red. The majority of the site (ie the WWTW and agricultural land, shaded red) lies within Kirklees with a smaller area for the new school car park (outlined red) opposite Woodland Church of England School lying within Bradford.

Figure 1: Site Location



- 1.4 Environmental Impact Assessment “EIA” is a formal process by which the environmental impacts of a development project are assessed; and where there is potential for a significant impact that cannot be avoided, works are identified to lessen the impact.
- 1.5 The ES reports on the findings of the EIA and sets out those areas where potentially significant environmental effects have been identified and the mitigation proposed to remedy predicted effects. It forms an important part of the planning application decision making process.
- 1.6 The EIA was undertaken voluntarily by the Applicant prior to the submission of the application in July 2016 as they consider that given the size, scale and nature of the Proposed Development it is considered to fall under schedule 2 (section 10b – urban development projects) of the EIA Regulations (The Town and Country Planning (Environmental Impact Assessment) Regulations 2011) as amended.
- 1.7 Since the application was submitted, it has been the subject of formal consultation with the public and statutory and non-statutory consultees. As a result of this feedback Keyland has amended the scheme and a new Environmental Statement has been prepared known as an Environmental Statement Addendum (**ESA**).
- 1.8 As well as the Proposed Development being revised, the Government has issued new Town and Country Planning (Environmental Impact Assessment) Regulations 2017, which came into force on 16th May 2017. The new ESA has been written in accordance with the new EIA Regulations, 2017.
- 1.9 The Environmental Statement which was prepared in support of the application in July 2016, has been reviewed by the technical consultants and is updated by the new ES Addendum taking into account the feedback and new Regulations. Some of the supporting Technical Appendices are unchanged, where they are changed by new assessments this is set out clearly in the new ESA.
- 1.10 The ESA has been prepared and the results are presented in two volumes:
- Volume 1 – Main Text
 - Volume 2 - Technical Appendices
- 1.11 Some of the Environmental Statement prepared in July 2016 (“known as July 2016 ES”) remains valid. The ESA makes it clear where the information within the July 2016 ES is still valid and where it has been superseded by the new ESA.
- 1.12 This Non-Technical Summary (**NTS**) summarises the findings of the ESA and describes the potential likely significant environment effects (beneficial and adverse) that may arise from the revised Proposed Development. This NTS also provides details of the measures undertaken to reduce the likelihood of potential environmental effects occurring and how environmental effects will be reduced.
- 1.13 The application seeks outline planning permission, in other words the Applicant is looking to agree the amount of development on site and the basic principles, such as maximum floor areas, building heights and main landscaping areas. The details of how the site layout, building design, site access design will be considered at a later date.

- 1.14 As the proposals cover a large area of land, circa 23ha, and involves a large amount of development on a part brownfield and part greenfield site, the Applicant considers that it is “EIA” development. This view is based on the legal requirements for Environmental Impact Assessment (EIA). As a consequence, the Applicant has prepared an Environmental Statement to consider the potential impacts of the development.
- 1.15 This document is a non-technical summary of the main Environmental Statement, and uses wherever possible, plain English.

Scope and Content of the Environmental Statement

- 1.16 There are legal requirements for what should be considered within an Environmental Statement (ES); these requirements are currently set out in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 1.17 It is important to read the ESA alongside the July 2016 ES.
- 1.18 The key requirements of an Environmental Statement can be summarised as:
- Description of the site and the proposed development (including demolition)
 - An outline of the main alternatives considered by the Applicant and main reasons for his choice.
 - A description of the aspects of the environment likely to be significantly affected by the development, i.e. population, ecology, soil, water, air, climate, heritage, landscape and any interrelationships between these.
 - A description of the likely significant effects of the development on the environment or human health.
 - A description of the measures to be used to prevent, reduce or offset any significant effects, called mitigation measures.
 - An indication of any difficulties or lack of know how encountered when preparing the ES.
- 1.19 The items listed about were provided in full within the main ES and the supporting Technical Appendices. Where there have been changes, such as to the description of the Proposed Development, these chapters have been amended and provided in the ESA. In addition to the above, the regulations require a non-technical summary (ie this document) to be prepared.
- 1.20 In preparing the ESA document, Turley has co-ordinated and prepared Chapters A1-A6, and Chapters A14-A15. There is a new requirement to set out the qualifications or expertise for those people who have prepared the document. This is set out below:

Table 1.1: Table Competent Experts

Chapter	Author/Contributor	Qualifications
A1. Introduction	Turley	
A2. Approach to EIA	Marianne McCallum	BSC(Hons) DiPTP, MRTPI
A3. Description of Site	(Associate Director)	
A4. Proposed Development		
A5. Consideration of Alternatives		
A6. Economy	Turley Richard Laming (Senior Director – Head of Economics)	BA (Hons) DiPTP, MRTPI
	Fiona Elton (Consultant)	MPLAN MRTPI
A7. Landscape and Visual	Topia Landscape Architects Sue Firth (Director)	BSC (Tech) Hons Applied Biology, BLD Landscape Design, CMLI Chartered Landscape Architect
	TGP North Ltd Andrew Gardner (Director)	MA (Hons) Landscape Architecture, CMLI Chartered Landscape Architect
A8. Ground Conditions	Wardell Armstrong Penny Longstaff (Principal Environmental Consultant)	BSc(Hons) and MSc.
A9. Ecology	Brooks Ecology Ltd Christopher Shaw (Ecologist)	BSc (Hons), ACIEEM
A10. Flood Risk and Drainage	Curtins Stuart Baker (Associate)	BEng (Hons Civil Engineering)
A11. Transportation	AECOM Stephen Moss	BEng (Hons) CEng MICE

	(Associate Director, Transportation)	MCIHT
A12. Noise and Vibration	AECOM Nathan Green (Acoustic Consultant, Environment and Ground Engineering)	BSc (Hons), AMIOA
A13. Air Quality	AECOM Kevin Turpin (Principle Scientist)	Ph.D. in Transport Emissions, De Montfort University: 1st Class Honours, University Of West of England. Member of the Institute of Air Quality Management: Member of the Institution of Environmental Sciences
	Tom Stenhouse (Associate Director)	Ph.D. in Atmospheric Chemistry, University Of Cambridge: MChem (Master of Chemistry): 1st Class Honours, University Of Leeds. Member of the Institution of Environmental Sciences: Member of the Institute of Air Quality Management: Chartered Environmentalist
A14. Inter-active and Cumulative Effects	Turley Marianne McCallum	BSC(Hons) DiPTP, MRTPI
A15. Summary of Mitigation and Residual Effects	(Associate Director)	

- 1.21 Should anyone wish to make representations on the application these can be made to Kirklees Council or Bradford Council at the following addresses:

Team Leader Major Developments
Investment & Regeneration Service
4th Floor Britannia House,
Kirklees Council
Civic Centre 3
Market Street
Huddersfield
HD1 2YZ

The Planning Service
Bradford Council
Hall Ings
Bradford
BD1 1HX

Site Description

- 1.22 The Application Site lies in the green belt as set out in the development plans for Kirklees Council and Bradford Council. It lies to the north east of Junction 26 (Chainbar) of the M62 motorway and to the east of the M606 motorway.
- 1.23 The site comprises: circa 23.2 ha of land to the south of Cliff Hollins Lane including the former North Bierley Waste Water Treatment Works (WWTW) and agricultural land; and 0.354 ha of land at Mill Carr Hill Road north of Cliff Hollins Lane.

Figure 2: Aerial photograph of the site, looking southwards the M62 Chainbar roundabout



- 1.24 Junction 26 (Chainbar) of the M62 motorway runs immediately south of the development site. The M606 motorway, which connects Bradford in the north to the M62, runs to the west of the site. The M606 motorway is generally raised above surrounding land levels on an embankment, and crosses Mill Carr Hill Road on a bridge.
- 1.25 There are agricultural fields and woodlands (including Hanging Wood) to the east and north east of the Application Site. Beyond the M606 motorway to the west is agricultural land, Cleckheaton Golf Course and the settlements of Oakenshaw (Kirklees District) and Low Moor (Bradford District). Beyond the M62 to the south and south east are the settlements of Hunsworth and Cleckheaton as well as agricultural fields.

- 1.26 Within the wider context of the site are a number of established industrial sites including: the Euroway Trading Estate to the north in Bradford; Low Moor chemical plant to the west in Bradford; and West 26 to the south in Cleckheaton.
- 1.27 The nearest settlement is the Lower Woodlands area of Oakenshaw which is immediately adjacent to the area proposed for the new school car park, and circa 400m to the north of the former WWTW. This settlement lies within the Bradford District and comprises circa 100 dwellings primarily located off Mill Carr Hill Road to the north, and a number of individual houses and farms located on Cliff Hollins Lane. The residential properties off Mill Carr Hill Road vary in age and style from Victorian terraced properties to detached houses constructed in the last 20 years, generally accessed via estate or private roads.
- 1.28 Woodland Church of England Primary School lies on the western side of Mill Carr Hill Road, and is separated from the M606 by the embankment and an area of woodland.
- 1.29 To the west of the site access for the former WTTWW are the three pairs of semi-detached bungalows on Cliff Hollins Lane, with a shared parking area off Cliff Hollins Lane. These are the nearest residential properties to the Application Site.
- 1.30 Oak Mills is located on Cliff Hollins Lane to the north of the former WTTWW access. Oak Mills comprises circa 1.9ha of industrial land including a modest mill building and various outbuildings. The remainder of properties on Cliff Hollins Lane are detached or farmsteads (including a horse riding school) set within the wider landscape and with access directly from Cliff Hollins Lane.
- 1.31 The topography in this area is characterised as rolling with some steeply sided hillsides. The site is low lying, settled between the motorway and the wooded hillside of Hanging Wood to the east. The site is located at between 90 and 110m Above Ordnance Datum (AOD). The development site lies within the valley formed by Hunsworth Beck which runs from the north west to the south east. Hunsworth Beck is a deeply incised, narrow water course within the woodland edge along the eastern site boundary. This is joined by Cockleshaw Beck that runs from Chatts Wood
- 1.32 The development site is not within a national landscape designation. There are no statutory listed buildings within the development site, or conservation areas covering the site.
- 1.33 Hunsworth Beck forms the eastern site boundary.
- 1.34 Hanging Wood lies adjacent to the eastern boundary of the former WWTW site and is not a statutory designation but is identified by Kirklees Council as a “Site of Wildlife Significance”

Application Site

- 1.35 The planning application site area has not changed. The description of the site set out in the July 2016 ES is therefore unchanged, and is summarised below.

Former WWTW and Agricultural Lane

- 1.36 The former WWTW is accessed from Cliff Hollins Lane to the north of the site, which is, in turn, accessed from Bradford Road (Junction 26 of the M62). Immediately to the west of the access road to the former WWTW lies circa 11.95ha of agricultural land. This land rises in level from the access road towards the M606 in the west, with the highest point being in the north western corner.

Figure 3 Aerial photograph of the site (outlined red) looking north west towards Oakenshaw and Euroway Industrial Estate



- 1.37 The site was closed in 2011 as a functioning waste water treatment works for South Bradford. Within the site are the remains of the decommissioned settlement tanks and filter beds, as well as access roads. Whilst the site has been decommissioned, Hunsworth Beck remains as an outfall route for clean water and therefore Yorkshire Water has recently installed new equipment within a small part of the site. This equipment is outside of the development site as it will be retained in operational use.
- 1.38 **Table 1.2** below outlines the main buildings and structures that are currently on site.

Table 1.2: Table 1 Existing Site Structures

Type	Location	Footprint (m ²)	Height (m)	Volume (m ³)
Building 1	Above ground	391	7.25	2,835
Building 2	Above ground	436	7.81	2,453
Tanks	Above ground	27,250	-	16,000
Tanks	Below ground	(included above)	-	4,000
Hard standing	Above ground	8,255	-	-
Total	-	-	-	25,288

- 1.39 The former WWTW site is generally level with a slight fall towards the south boundary, and lies between 89m and 96m AOD. The agricultural land to the west, adjacent to the M606, is around 100-112m AOD.
- 1.40 A public footpath enters the site at the WWTW site access southwards through to Hanging Wood.
- 1.41 Power lines cross the site in an east/west direction about a third of the way up the WWTW site from the south. There is also a high pressure gas pipeline which enters the site to the north of Hanging Wood and cuts diagonally through the site to the south west boundary, where it leaves the site to the north of the power line.

Field opposite Woodlands School, Mill Carr Hill Road

- 1.42 That part of the development site proposed for the new school car park is currently a green field. Hunsworth Beck runs along the southern boundary of the field, and lies outside of the development site. The site levels drop from Mill Carr Hill Road on the west to the south eastern corner.
- 1.43 A row of Victorian terraced residential properties lie on the northern boundary of the site, with residential gardens in the north eastern corner.

2. The EIA Process

- 2.1 The ESA has been prepared pursuant to The Town and Country Planning (Environmental Impact Assessment) Regulations 2017.
- 2.2 The ESA has had regard to all aspects of the environment likely to be affected by the Proposed Development and includes an assessment of the likely extent and significance of the potential environmental effects.
- 2.3 The ESA along with the July 2016 ES constitute the Environmental Statement for the Proposed Development. These documents are accompanied by technical appendices which provide the background technical information that has assisted the assessment.
- 2.4 The topics to be included within the ESA were determined by the applicant with informal agreement with the Planning Authority, although no formal Scoping Opinion (where the topics are formally agreed through consultation) was adopted.
- 2.5 It was agreed to assess the impact on the following topics;
 - Economy, Population and Society (Socioeconomics)
 - Landscape and Visual Impact
 - Ground Conditions
 - Ecology
 - Flood Risk and Drainage
 - Transport
 - Noise and Vibration
 - Air Quality
- 2.6 The new EIA Regulations 2017 require consideration to be given to the impact on human health. In this case, the potential significant effects on human health are related to potential contamination, water quality, noise and vibration, and air quality. Each Chapter considers the potential effect on humans in the assessment.
- 2.7 In addition, consideration needs to be given to the potential effects of climate change and any hazardous installations on or near to the site. The potential effect of climate change has been considered within the Flood Risk and Drainage Chapter A10. Consideration of the potential risk to humans and the environment from the high pressure gas main that crosses the site is addressed in Chapter A1, and confirms that during consultation with the Health and Safety Executive and Northern Gas Pipelines no objections have been raised to the development.
- 2.8 In order to carry out an assessment of the likely environmental effects of the Proposed Development, the existing or 'baseline' conditions must first be defined. The likely extent of the environmental effects and their significance can then be assessed. As a starting point, the ES adopts the baseline position as being the existing site conditions. The environmental effects to be assessed are therefore the difference in effects between the existing conditions and the Proposed Development.

- 2.9 The likely significant environmental effects are considered against significance criteria, which is used throughout the ES, and adapted as necessary for each topic area. This is outlined below. Within each assessment, a judgement is applied to confirm at what level an effect is considered to be 'significant'. In the majority this relates to moderate effects and above.

Table 2.1: Significance Criteria

Magnitude	Criteria
Major adverse	The Proposed Development (either on its own or with other proposals) could have a major adverse effect on the character and integrity of the sites and/or their surrounding area.
Moderate adverse	The Proposed Development (either on its own or with other proposals) could have a moderate adverse effect on the character and integrity of the sites and/or their surrounding area.
Minor adverse	The Proposed Development (either on its own or with other proposals) could have a minor adverse effect on the character and integrity of the sites and/or their surrounding area.
Negligible	No observable effect.
Minor beneficial	The Proposed Development (either on its own or with other proposals) could have a minor beneficial effect on the character and integrity of the sites and/or their surrounding area.
Moderate beneficial	The Proposed Development (either on its own or with other proposals) could have a moderate beneficial effect on the character and integrity of the sites and/or their surrounding area.
Major beneficial	The Proposed Development (either on its own or with other proposals) could have a major beneficial effect on the character and integrity of the sites and/or their surrounding area.

- 2.10 The assessment is undertaken for all phases of the development – demolition/remediation/construction and operation.

- 2.11 Where the assessment procedure indicates that the Proposed Development is likely to have significant adverse effect, the ES identifies appropriate mitigation measures to prevent, reduce, or offset these effects and/or take advantage of opportunities for environmental enhancements. Such mitigation can either be incorporated into the proposed design and operation of the Proposed Development, or through the introduction of particular safeguards or additional measures.

A cumulative assessment is also undertaken to considered effect interactions and in-combination effects. Effect interactions are the combined or synergistic effects caused by the combination of a number of effects on a particular receptor which may collectively cause a more significant effect than individually. In-combination effects are the effects of the Proposed Development together with other committed developments.

3. Proposed Development

3.1 Planning permission was originally sought for:

Re-development of former waste water treatment works following demolition of existing structures to provide employment uses (Use Classes B1(c), B2 and B8) and residential use (Use Class C3) on land off Cliff Hollins Lane and provision of a school car park for Woodlands Primary School on land off Mill Carr Hill Road (outline application – all matters reserved).

3.2 Following feedback during the planning application process the description of development has been changed to remove residential development from the scheme. It now reads as follows:

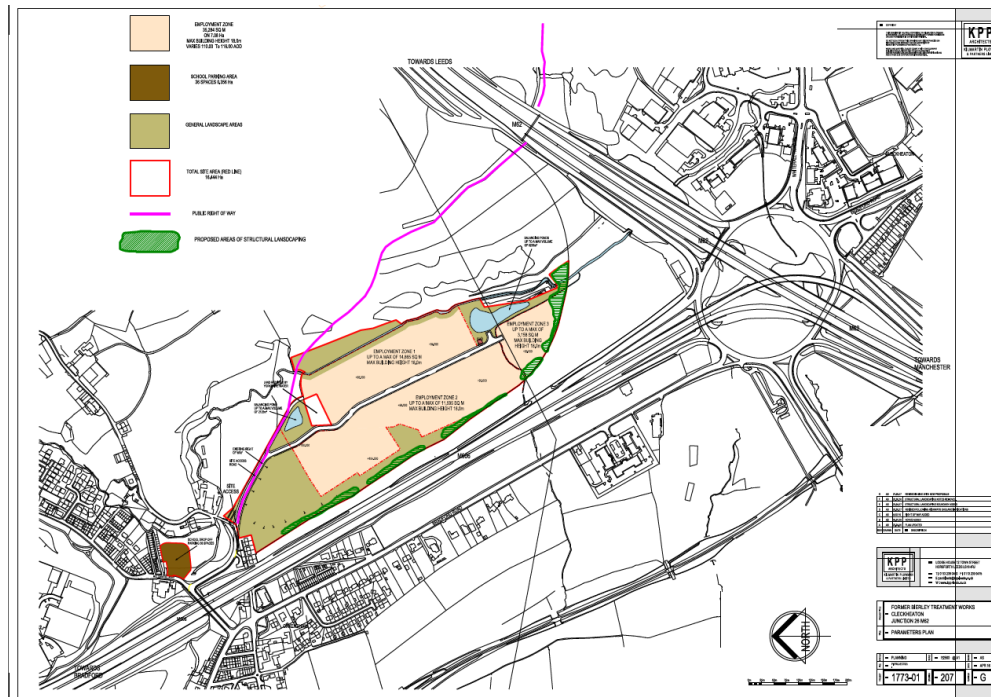
Re-development of former waste water treatment works following demolition of existing structures to provide employment uses (Use Classes B1(c), B2 and B8) on land off Cliff Hollins Lane and provision of a school car park for Woodlands Primary School on land off Mill Carr Hill Road (outline application – all matters reserved).

3.3 It is standard practice with outline planning applications to establish a set of development parameters to both guide the development and to aid the assessment of effects. This approach ensures that the future development does not exceed what has been assessed in the ES.

3.4 The Development Parameters in this case are shown on the Parameters Plan (**Figure 4**, and defined as:

- Distribution of land uses
- Maximum floorspace for industrial units
- Maximum residential numbers
- Buildings heights
- Vehicular access points
- Drainage Strategy including the size of the main drainage ponds

Figure 4: Parameters Plan



- 3.5 An Illustrative Masterplan has been prepared which demonstrates how the Development Parameters can be accommodated on the site. However, the Illustrative Masterplan is entirely illustrative, and reflects how one potential outcome in line with the parameters. This plan does not form part of the application submission.

Distribution of Land uses

- 3.6 The distribution of uses is shown on the Parameters Plan, Figure 4 above.

Table 3.1: Development Parameters

Area (Net)	Use	Max Floorspace	Max Height
9.94	Employment Zone 1	14,865 sq m	18m AGL
	Employment Zone 2	11,613 sq m	18m AGL
	Employment Zone 3	11,613 sq m	18m AGL
3.25	Residential	101 units	9m AGL
0.356	School Car Park	36 spaces	-
	Drainage Attenuation Ponds		
	Residential area	2125m3	
	Employment area	6235m3	

- 3.7 The parameter plan confirms the dominant land use as employment with residential use (including infrastructure, parking and associated landscaping). The proposed car park for Woodlands Church of England School is also included in the scheme.
- 3.8 The residential zone will provide up to 101 dwellings plus associated open space. Structural landscaping is provided on the site boundaries providing an appropriate separation distance from the motorways, Hunsworth Beck and other adjacent land uses. Balancing ponds are also identified and their capacity set out.

Building heights

- 3.9 The proposed building heights are shown on Parameter Plan. In particular, there is reference to maximum building heights reflected in metres above the proposed ground level. The employment units are identified as being a maximum 18m in height, whilst the residential units would be a maximum 9m in height.
- 3.10 The height in metres is considered as a maximum, and allows for chimney heights etc.,. It is likely that final completed storey heights would actually be below this height. However, for the purposes of a fully robust assessment, a maximum height is given.

Location of Access

- 3.11 Full details of the means of access are to be reserved for later approval. The location of the access to the main site is from Cliff Hollins Lane, reflecting the existing line of the access to the former WWTW. This access route will include a realigned widened junction and widened entrance road to the site. The location of the access to the new school car park will be from Mill Carr Hill Road, opposite Woodlands Church of England School.

Site Levels

- 3.12 The proposals also include the creation of building plateaus in order to provide level areas for building. The Plateau Plan (Figure 5) and Site Sections (Figure 6) below show how the levels would be provided on site.

[illegible]

The technical drawing consists of several parts:

- Cross-sections:** Labeled SECTION A-B, SECTION C-C, SECTION D-D, SECTION E-E, SECTION F-F, SECTION G-G(1), SECTION G-G(2), and SECTION G-G(3). Each section shows a profile with elevation markers (e.g., 10.00m, 80.00m) and labels for "BETTER BOUNDARY", "PROPOSED LINE", and "APPROXIMATE DEPTH TO BEDROCK".
- Plan View:** Located at the top right, showing the site layout with numbered points 1 through 9.
- Title Block:** Located at the bottom right, containing project information and a scale bar.

KPP PROJECT INFORMATION	
PROJECT NAME	KPP PROJECT
CLIENT	KPP PROJECT
DESIGNER	KPP PROJECT
DRAWN BY	KPP PROJECT
CHECKED BY	KPP PROJECT
DATE	2017-01-21

Scale: 1:1000

North Arrow: [Symbol]

Legend:

- [Symbol] PROPOSED TREATMENT WORKS
- [Symbol] EXISTING TREATMENT WORKS
- [Symbol] EXISTING TREATMENT WORKS
- [Symbol] EXISTING TREATMENT WORKS
- [Symbol] SITE BOUNDARY

Section Labels:

- SECTION A-B
- SECTION C-C
- SECTION D-D
- SECTION E-E
- SECTION F-F
- SECTION G-G(1)
- SECTION G-G(2)
- SECTION G-G(3)

3.13 At this stage in the project, no detail is known on construction programme or phasing. However, for the purposes of modelling (particularly in respect of transport), it is assumed the development will be commenced in 2022, after the submission and determination of reserved matters application (s) and will be completed by 2026.

3.14 The general approach to the construction will follow these principles:

1. Establish a site compound
2. Demolish existing structures and buildings, and stockpile the materials for reuse
3. Site remediation and regrading to create development plateaus including temporary drainage provision
4. Access road and servicing plots and advance landscaping
5. Construct buildings in line with market demand

4. Consideration of Alternatives

- 4.1 The need for the development and the main alternatives have been considered by the Applicant.
- 4.2 The need for the proposal can be considered as follows;
- The need to deliver new employment land to support the key economic sectors in the area thereby providing new job opportunities
 - The need to deliver new homes and meet housing needs
 - Reuse of a brownfield site including the remediation of the site.
 - Requirement to provide off street car parking for Woodlands Church of England
 - Fulfilment of Policy Context – the emerging Kirklees Local Plan includes an aspiration for the redevelopment of the site for employment purposes recognising its brownfield status close to good motorway connections.

Alternatives

- 4.3 In accordance with the EIA Regulations 2011, this section of the ES outlines the main alternatives studied by the applicant and an indication of the main reasons for the proposed development. Alternatives considered as part of the EIA process comprise:
- “Do nothing” scenario;
 - Alternative sites for the Proposed Development; or
 - Alternative schemes for the site.
- 4.4 It is not possible in this instance to disaggregate the 3 main elements of the proposal. A viability report has been undertaken and confirms that in order to secure the required employment land provision residential development is necessary to fund the abnormal remediation and development costs and the car park for the school.

“Do Nothing” Scenario

- 4.5 The “do nothing” scenario would result in no physical or environmental change to the WWTW site.
- 4.6 The need for the Proposed Development has been clearly set out above and the opportunity for redevelopment of this brownfield well connected site. Retaining the site in its current form would not deliver the economic benefits that would arise from releasing this land to meet the latent unmet demand for large scale employment sites close to the motorway network. Furthermore, housing to meet local needs and to contribute to the strategic housing requirement would be lost in this scenario. Equally the environmental benefits arising from the Proposed Development would not be delivered.

Alternative Sites

- 4.7 As the site is within the Green Belt, the Applicant has considered a number of alternative sites both within Kirklees and the wider area. However, it has to be noted that due to the scale of the latent and unmet demand for employment floorspace it will be necessary for a portfolio of sites to be progressed. W
- 4.8 There are no opportunities within Bradford to deliver the scale of development required. The main alternative sites that were considered are identified on the following map.
- 4.9 The first sites considered were those within existing Primary Employment Areas (PEA) as defined in the emerging Local Plan evidence base. Four PEA's were considered. However, they were discounted as they either were too small or constrained to provide a viable large scale industrial unit.

Figure 6: Plan of alternative sites



- 4.10 In terms of the key environmental constraints all of those sites listed below , except Cooper Bridge, are greenfield sites. Only the committed sites are allocated by the adopted development plan, and all other sites lie within the Green Belt, although it is noted that the Application Site and part of the Cooper Bridge site lie outside of this designation. All the sites, except the Application Site, lie within Flood Zone 1. Each site also has its site specific constraints relating to ecology or BAT habitats, listed buildings/conservation areas, archaeology, agricultural land quality, proximity to residential properties, public rights of way, contamination/coal mining.
- 4.11 The sites that were considered fell into the following categories and can be summarised as follows:
- Committed Sites: Slipper Lane; Lindley Moor

Committed Sites of Slipper Lane and Lindley Moor were discounted as neither of them could provide the scale of development required to meet the latent need for employment land. Importantly, whilst Slipper Lane might be able to come forward in the short to medium term Lindley Moor has significant infrastructure issues which would need to be resolved first.

- Draft Local Plan – Strategic Sites: Cooper Bridge; Chidswell

The Draft Local Plan sites of Cooper Bridge and Chidswell are being pursued by Kirklees Council as potential large scale strategic development sites. Cooper Bridge is also a former WWTW but is constrained in highways terms, it is also affected by a high pressure gas main and coal mining. This site is a longer term development site which cannot meet the current employment land requirements. Chidswell is a much larger site, circa 117ha, which is to be focussed towards housing with about 122,550sqm of employment. This site has potential archaeology below the ground which may need further investigation. Access to the site will also need to be resolved. The scale and on site constraints for this site mean that it is not expected to come forward in the short term and therefore will not meet the current employment land requirements.

- Draft Local Plan – Proposed Allocations: land at A58/M606, Cleckheaton; Application Site

Neither of these sites are unduly constrained and should be able to deliver part of the requirement for employment land. However, both of these sites would form part of the overall portfolio of sites. The Application site is partly brownfield and therefore should be released ahead of a greenfield site, such as the land at A58/M606, Cleckheaton.

- Other potential sites: Howden Clough Road; Whitehall Road, Hunsworth; Bradford Road/Sykes Lane; Oakenshaw Lane; Brighouse Road/Ainley Top; land to rear New Hey Road, Mount.

These sites are not identified in any adopted or emerging development plan and were included due to their potential to provide employment development. However, Howden Clough Road and New Hay Road were discounted due to topographical site constraints, whilst Oakenshaw Lane and Whitehall Road West are constrained in access terms. Brighouse Road/Ainley Top was discounted as it is limited in size so whilst it may be able to deliver smaller units the market demand and viability of such is questionable.

Alternative Proposed Development Options

- 4.12 As well as considering whether the development could be provided on alternative sites, the Applicant has considered a number of different development scenarios and layouts.

Option 5 – Small scale Industrial Units

- 4.13 Option 5 was not subject to formal viability assessment. It was developed in response to the viability of the Green Belt policy compliant option. It was developed at an early

stage, while the team were still investigating site constraints and so does not fully reflect the extent of constraint which are now known on the site.

- 4.14 This option proposed a central spine road extending across the entire site to the M62 at the south. The scheme provided 43,153sqm of B Class accommodation over 23.5ha (net) in a number of small scale units and utilised the whole site.
- 4.15 This scheme shows the maximum extent of a smaller unit development that could be accommodated on the site.



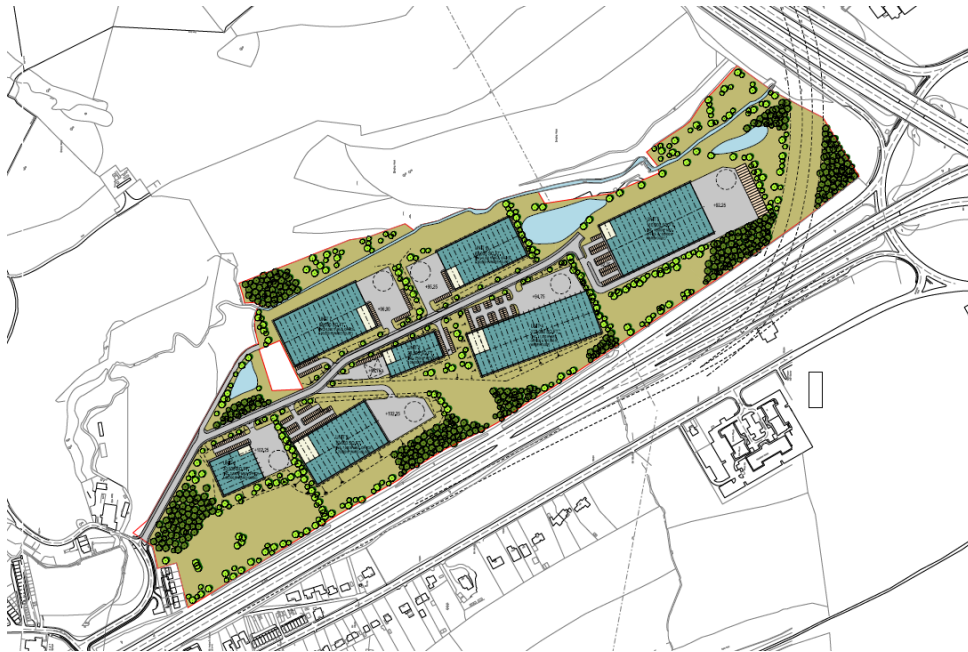
Option 5: Employment Use Only

- 4.16 However, this Option was discounted for a number of reasons:
- The scheme does not account for the improvement works to the M62/ M606 junction, and therefore the southern end of the site would be sterilised.
 - The southern end of the site, it was since discovered, is more difficult to develop due to adverse ground conditions.
 - The extent of the development had the effect of increasing site servicing costs, by requiring a spine road to run along the entire length of the site (the site is around 1km in length).
 - The focus on smaller units had the effect of increasing build costs, due to the extra fit out requirements and extra materials required for dividing walls.
- 4.17 It was considered, taking into account these factors, that this scheme would not be deliverable in practical terms.

Option 8 Employment Use Only and Motorway Improvements

- 4.18 This scheme addressed the issues identified in Option 5. It provided land for the motorway improvement, reduced the extent of the development (helping with

both servicing / development costs) and focussed on slightly larger units. This scheme delivered 46,358sqm of commercial floorspace on 23.26ha (net).



Option 8 Employment Use including Motorway Works

- 4.19 This option is not viable as the value of the site for employment use is not sufficient to support the significant costs associated with remediating the WWTW, providing the site plateaus and implementing the off-site highway improvements on Cliff Hollins Lane.

Option 13:

- 4.20 Option 13 was derived following a number of other options. The key changes are:

- The addition of a new School Car Park. This arose following public consultation and is a direct result of local concerns about conflicts between school children and employment traffic during school pick up and drop off times. This addition is considered necessary as it represents the safest method of ensuring that the development does not affect road safety in the vicinity of the site.
- The replacement of 9940sqm of employment space with 3.8ha of residential (up to 120 units).

- 4.21 These changes add in a cost to the development, in the form of the car park, but also generate additional income from the higher use value of the residential development.

- 4.22 This scheme delivers 9.94 ha of employment space (net); 3.8ha of residential and a new school car park.



Option 13 Employment and Residential Development

- 4.23 This option was discounted as it was not viable and did not provide sufficient on-site open space for the residential.

Option 14: Original Proposed Development July 2016

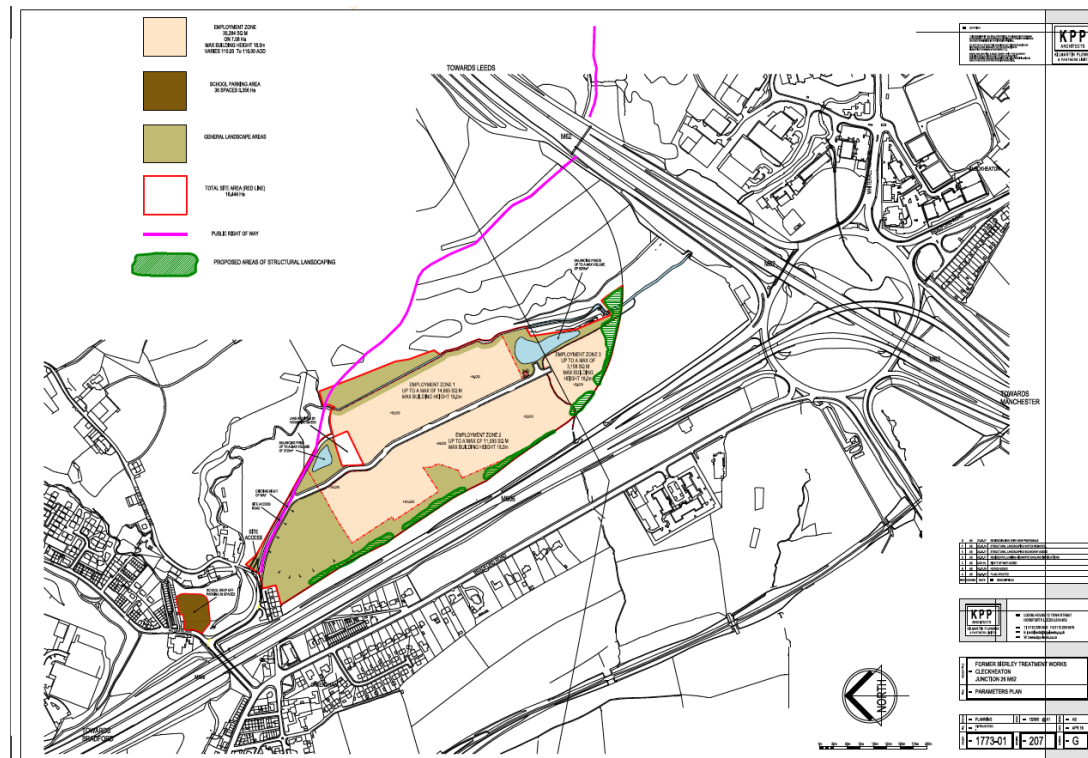
- 4.24 The Proposed Development scheme includes an appropriate mix of employment and enabling residential development, whilst providing sufficient land for the highway improvements to the adjacent motorways. The school car park is included.
- 4.25 Following feedback during the planning application process, it became clear that additional land may be required by Highlands England as part of potential improvements to the Chainbar roundabout on the M62. In addition, the residential development was removed from the scheme due to discussions relating to viability. This option is no longer being pursued.



Option 14: Proposed Development

Proposed Development

- 4.26 The Proposed Development has been revised to reflect feedback and now removes residential development from the scheme and leaves an area of the site to the south free from development to enable potential improvements to the Chainbar roundabout on the M62. The red line area for the application remains as originally set out.
- 4.27 The revised Proposed Development will accommodate circa 7ha of employment land with associated landscaping, drainage attenuation and site access. The school car park remains part of the proposals.
- 4.28 The Proposed Development is considered to be the most viable proposal which addresses the environmental, the physical constraints, and the market requirements.



Proposed Development 2017

5. Summary of Topics

Economy, Population and Society

- 5.1 The Proposed Development will have a beneficial effect on local economic conditions as well as on the local population. This includes job creation and additional GVA to the local economy during construction and operational phases. The local community will also benefit from the uplift in provision of public open space, which will address the deficit in provision currently apparent in the neighbourhood area and generate indirect health benefits as a result.
- 5.2 Specifically, the Proposed Development will have the following effects during the construction and operational phases:

Construction Phase

- Directly support 125 FTE gross construction jobs on site per annum over the construction period, of which 84 FTE could be supported within the local area.
- Generate an additional £7.3 million in GVA for the wider economy for each year of construction.

Operational Phase

- Support a total of 388FTE jobs in the local area, and a total of 770 net additional FTE jobs across the wider impact area once leakage and multipliers are included.
- Generate £32.8 million in GVA annually in the wider impact area, of which £15.9 million GVA could be supported in the local impact area.
- Generate circa £590,000 business rate revenue per annum could be retained by the Kirklees Council from 2020 when 100% business rates are retained by local authorities.
- Increase provision of amenity green space and generate demand for other types of open space and recreational facilities.

Landscape and Visual

- 5.3 Chapter 7 of the Environmental Statement has been completely replaced by Chapter A7 of the ESA. It considers the landscape and visual impact assessment (LVIA) of the Proposed Development at North Bierley WwTW and associated infrastructure. The LVIA has been carried out by TGP Landscape Architects (North) Ltd and Topia Landscape. Addendum Technical Appendices (A7.0) have been provided and include baseline information as well as photomontages.
- 5.4 A comprehensive assessment of the existing landscape character in the vicinity of the application site was undertaken to identify and evaluate significant environmental considerations for visual impact assessment. In particular the landscape appraisal was used to determine the capacity of the landscape to withstand change. A study area of 5km radius was established for the landscape and visual impact assessment.

- 5.5 The significance of landscape and visual effects are determined by considering the combination of landscape or visual sensitivity with the predicted magnitude of change. These have been classified as Major, Moderate, Minor or None. In this LVIA, effects that are described as Major or Major/Moderate are considered to be significant effects as defined by the Environmental Impact Regulations 2011. It should be noted that significant effects need not necessarily be unacceptable or negative.
- 5.6 The Proposed Development will change the character of the site in the vicinity of the existing WwTW both during construction and once building has been completed. However, the assessment confirms that in the longer term with the landscaping in place the effect is beneficial.
- 5.7 The assessment shows that there will be significant adverse effects on the Batley Fringe Incised Valleys Landscape Character Area designation in the vicinity of the Application Site.
- 5.8 There will also be significant visual effects on the users of some properties occupying the higher ground to the north (including Cliff Hollins Farm) of the Proposed Development and on users of the local footpath network.
- 5.9 Mitigation measures have been proposed that seek to address these significant effects. The parameters plan includes a new landscape infrastructure using topography, woodland blocks, hedgerows and trees to aid screening of the development from visual receptors and to break up the massing of the development. The assessment confirms that the visual impact
- 5.10 It is considered that the effect on Hanging Wood to the north of the site could be beneficial once the long term mitigation measures have established and more wildlife corridors adjoining the ancient woodland have been created.
- 5.11 In conclusion the landscape and visual impact of the Proposed Development changes the landscape character of the site and has significant visual effects on elements within the study area, however, with sensitive design and a responsive landscape scheme, these effects may be mitigated.

Ground Conditions

- 5.12 This chapter re-assesses the subsurface ground conditions beneath the Application Site that may potentially impact upon and be impacted by, the Proposed Development. This included an assessment of general ground conditions, the potential presence of contamination and the possibility of mining instability.
- 5.13 The assessment was carried out based on the findings of a desk based assessment, a Phase II Site Investigation, a Soils and Agricultural Land Desk Study and Mining Remediation Strategy (July 2016 ES). An updated Risk Assessment has been undertaken and is provided as an Addendum Technical Appendix to the ESA. The methodology for the assessment was based on a combination of sensitivity and magnitude which was used to determine the significance of the effect.
- 5.14 Baseline data was collected from a desk based assessment and from site investigation data. Historical plans show that a sewage works was present on part of the Application

Site in 1893. The Valley Pit Coal and Ironstone workings were also present in the west of the Application Site at this time along with an Old Coal pit in the south. A tramway is reported extending across the western part of the Application Site. Subsequent maps show general expansion and changes to the layout up until 2004.

- 5.15 The Application Site is situated on Lower Coal Measures which are considered a minor aquifer. Alluvium drift deposits are indicated as likely to be present along the eastern boundary associated with the Hunsworth Beck. Findings from the Coal Authority report suggest that shallow mine workings will potentially be present beneath the southern portion of the Application Site and there are potentially up to 12 mine shafts at the Application Site.
- 5.16 Results from the site investigation indicate isolated elevated arsenic concentrations in the residential area and may pose a risk to human health in a residential land use and also to construction workers during construction. No elevated concentrations were identified in the commercial area and are unlikely to pose a significant risk to long term human health given an ongoing commercial land use.
- 5.17 Gas protection measures are recommended as a precaution in the southern area of the Application Site to address high levels of methane. No gas protection is required over the remainder of the commercial area. Depending on the development type in the residential area, ground gas protection measures are expected to be required in this area.
- 5.18 Potential significant effects have been assessed with regard to the baseline data and both the construction and operational phases of the Proposed Development and a number of adverse effects identified including:
- Permanent loss of soils/natural strata through construction/ excavation;
 - Introduction of additional contamination into soil/groundwater during construction phase as a result of accidental spillages i.e. fuels, construction materials;
 - Impact on construction workers as a result of excavations into contaminated soils/groundwater;
 - Impact on construction workers due to excavations into and treatment of unstable mining features;
 - Introduction of contamination into soil/groundwater as a result of accidental spillage/leakage from vehicles (site users and delivery vehicles);
 - Degradation of building materials over time as a result of contact with sulphates within soils;
 - Impact on buildings/development as a result of unstable ground; and
 - Impact on future occupiers as a result of ground gas.
- 5.19 Mitigation measures have been outlined such as a remediation scheme and Construction Environmental Management Plan and will be controlled through planning

conditions. These measures will reduce the significance of the impacts identified. In all instances the significance of the impact can be reduced to negligible once mitigation measures are implemented

Ecology

- 5.20 Chapter A9 of the ESA considers the potential significant effects on ecology and updates, where necessary, the assessment undertaken in the July 2016 ES. Reference will be made to the Chartered Institute of Ecology and Environmental Management's (CIEEM) Guidelines for Ecological Impact Assessment in the United Kingdom (2006). These guidelines have become a standard point of reference for Ecological Impact Assessment methodologies.

Wildlife sites

- 5.21 No statutory designated sites are found within a 2km search radius.
- 5.22 Five locally designated sites are located within the search area, only one of which is considered to be within the sites Zone of Influence; this being Hanging Wood Kirklees SWS. As such this feature will be taken forward as a Valued Ecological Receptor.

Invasive species

- 5.23 Three invasive species listed under Schedule 12 of the Wildlife & Countryside Act (1981) are found on, or immediately adjacent to the site. These are Himalayan Balsam, Japanese knotweed and Cotoneaster. Their long term management and removal from site is recommended.

Protected Species

- 5.24 West Yorkshire Ecology is the key local holder of biological records, and was consulted during the initial assessment of the site. Consultation with any other groups is not been considered necessary. A record search was completed by West Yorkshire Ecology (WYE) which was tasked with carrying out a search for BAP, red data book and protected species, and listed wildlife sites within 2km of the application site.
- 5.25 WYE returned a number of records within the 2km search radius. These included: common frog and toad, great crested newt, smooth newt, bluebell, a range of designated bird species, common blue butterfly and 9 records of bats. None of these records were located within the application site.
- 5.26 An extended Phase 1 Habitat Survey for the site was undertaken by the Applicant and identified the need for further baseline surveys covering: bat emergence; riparian mammal; White clawed crayfish; reptiles
- 5.27 The conclusion of the Phase 1 survey and the subsequent detailed surveys confirmed the site holds limited or no potential for the bird species recorded, as well as limited potential for bluebell and no valuable breeding habitat for amphibians. Hunsworth Beck passes along the sites northeast boundary and represents a strong linear feature across the local landscape. This also has the potential to support riparian mammals and crayfish, for which surveys were carried out in 2014 and determined likely absence. This feature also connects the site to the adjacent Kirklees Site of Wildlife Significance – Hanging Wood.

- 5.28 Pockets of good reptile habitat are found on site, however dedicated survey spread across the 2014 survey season have found likely absence of this group. A single building is found on site which provides bat roosting opportunities, though again dedicated survey revealed likely absence of roosting in 2013. In the absence of evidence of the species being confirmed on site, no further assessment was undertaken.
- 5.29 The surveys and record searches have not revealed important habitats on site or notable species or assemblages of species, and no further baseline studies have been considered necessary to make an assessment of the value of the application site as a whole. Given the proximity of Hunsworth Beck to the site, and its value as a likely corridor, this feature will be taken forward in the assessment, along with Hanging Wood and the invasive plant species.
- 5.30 During the demolition and construction phase the one of the main effects on Hanging Wood and also Hunsworth Beck would be as a result of the dust, noise and light pollution arising from this stage of the work. It is considered that this would be negligible, temporary and subject to appropriate mitigation such as a Construction Environmental Management Plan. The demolition/construction phase will also result in the removal of the invasive plant species, special invasive species management plan will be in place to ensure that this is appropriately disposed of and not spread elsewhere.
- 5.31 During the operational phase, the effect on Hunsworth Beck and Hanging Wood is negligible subject to the implementation of the mitigation measures and the structural planting as shown on the Parameters Plan. The safe removal of the invasive plant species will result in a minor/moderate benefit.
- 5.32 As a result a Construction Environmental Management Plan will be provided that will set out how the impacts of construction can be mitigated. Further, a Biodiversity Environmental Management Plan is provided, which will set out long term plans for the enhancement of the wider site to benefit biodiversity and will be conditioned.
- 5.33 Overall, after mitigation, all impacts are considered to be either beneficial or not significant. There are no cumulative effects.

Flood Risk and Drainage

- 5.34 Chapter A10 of the ESA provides an update to the assessment of the likely significant effects of the Proposed Development on flood risk and drainage. A full baseline position is outlined, before an assessment of significant effects. Mitigation measures are proposed as necessary where adverse effects are identified.
- 5.35 In terms of the baseline, the Hunsworth Beck flows along the eastern boundary of the Application Site. There
- 5.36 The Environment Agency Indicative Flood Zone mapping shows the Application Site to be situated across Flood Zones 1, 2 and 3, although the majority of the developable area lies in Zone 1, with just a small area in the south eastern corner currently occupied by WWTW filter tanks is identified as Flood Zone 2 and 3.

- 5.37 There are likely significant effects to the water environment and flood risk associated with both the remediation and construction and operational phases. Generally risks caused by the demolition/construction phases are considered short term, whilst those associated with the operational phase are longer term.
- 5.38 During construction a Construction Environment Management Plan (CEMP) is proposed to set out detailed methodologies and monitoring requirements of the measures below to prevent adverse effects on the water environment.
- 5.39 During operation, runoff from highway and the employment and residential areas will be collected in designated drainage ponds before its discharge to the local watercourses. The detail of which will be contained within a drainage strategy to be conditioned.
- 5.40 A reduction in infiltration, and the associated increase in surface water runoff rates and volumes will be mitigated through a detailed surface water drainage strategy. Therefore there will be no increase in surface water runoff rates from the Site. Overall, mitigation measures will be included within the proposed development to reduce adverse effects and in some cases, provide betterment to the long-term situation when compared to the existing baseline situation.
- 5.41 On this basis, negligible effects are predicted during remediation and construction, with a minor beneficial effect at operation on flood risk as suitable surface water drainage systems will be utilised. However, as these effects fall below the threshold for this topic, no significant effects are predicted. There are cumulative effects predicted.

Transport

- 5.42 Chapter A11 of the ESA provides an updated assessment of the likely significant effects of the Proposed Development on transport reflecting the employment only nature of the development. It is accompanied by a new Transport Assessment and Framework Travel Plan (**Addendum Technical Appendices A11.0 and A11.1**).
- 5.43 It provides a full assessment of the baseline position, followed by an assessment of effects in terms of pedestrian, cycling and public transport environment, traffic impact, severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation, hazardous loads, parking, accidents and safety, in line with the published methodology for this discipline. Mitigation measures are then proposed and residual effects predicted.
- 5.44 During demolition and remediation and construction phases of the Proposed Development, the following potential direct impacts are likely:
- During remediation and construction, HGV vehicle trips to deliver and remove materials;
 - temporary closure of pedestrian footpaths;
 - dirt and mud on road services; and
 - construction workers accessing the Site.

- 5.45 However, all effects are predicted to be minor/negligible during this phase and would be temporary.
- 5.46 In terms of operation, the proposed development includes amendments to the Site Access Junction, as well as off-site improvements to improve road width at the junction of Cliff Hollins Lane/Mill Carr Hill Road, and Bradford Road/Mill Carr Hill Road. The amendments to the Site Access Junction will enhance safety for all users, improve pedestrian connectivity, and make access to and from the site simpler and easier. The highway network will continue to operate efficiently with the changes to the junction in place. The off-site improvements will be secured through planning conditions.
- 5.47 The proposals include a school parking area to alleviate an existing issue with on-street parking at the beginning and end of the school day. This parking area will provide 36 spaces and will improve highway and pedestrian safety.
- 5.48 In terms of traffic impact, the proposed development will increase the amount of traffic particularly on Cliff Hollins Lane (west), Mill Carr Hill Road (west) and Bradford Road this will have only a negligible effect on the overall operation of the highway network.
- 5.49 Mitigation is identified in respect of the CEMP to control dust and dirt and in respect of the travel plan to seek to encourage sustainable transport choices. These measures will be controlled by planning condition. The off-site works to Cliff Hollins Lane/Mill Carr Hill Road, and Bradford Road/Mill Carr Hill Road will be secured through planning conditions and subsequent S278 agreement. With the mitigation measures in place there are no significant effects.

Noise

- 5.50 Chapter A12 of the ESA re-assesses the likely significant effects of the Proposed Development with respect to noise and vibration. It describes the methods used to assess the impacts; the baseline conditions currently existing at the Application Site and in the surrounding area; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after these measures have been adopted.
- 5.51 Effects are considered during the site preparation and various construction phases and on completion, the operation of the Proposed Development. In particular, the Chapter considers potential impacts on identified NSRs in terms of:
- Potential noise and vibration impacts from construction works;
 - Noise from building services and plant and any other activities associated with the Proposed Development during operation; and
 - Any increases to road traffic associated with the Proposed Development.
- 5.52 Baseline noise surveys have been undertaken in February and March 2017.
- 5.53 Through the use of 'Best Practicable Means', appropriate control measures and on-site management of works activities and HGV access/departure points, it is considered that

noise and vibration effects during construction works can be limited to an effect of negligible.

- 5.54 The operational noise from typical site operations on surrounding NSRs has been assessed, including the proposed residential zone. Daytime HGV deliveries to the site would result in a negligible effect.
- 5.55 To ensure that the noise from the operational stage does not exceed the relevant British Standard, careful consideration will need to be given at the detailed planning application stage to an appropriate site layout so that buildings screen residential properties from service yard areas, plant and machinery is maintained, reverse alarms This can be controlled through planning conditions.
- 5.56 Based on the results of the baseline noise surveys, appropriate operational noise limits for building services and plant have been recommended. Through the use of appropriate noise control measures in order to achieve the specified operational noise limits, it is considered that noise and vibration effects of operational building services and plant noise can be limited to negligible.
- 5.57 Effects of operational traffic noise have been calculated using methodologies in line with CRTN and assessed against DMRB guidance. It is predicted that long-term effects from operational traffic will be limited to negligible.

Air Quality

- 5.58 Chapter A13 Air Quality replaces in its entirety Chapter 13 of the July 2016 ES, and considers the information contained within Chapter A11 relating to Transport. The new Chapter considers the potential effects on air quality specifically, the impacts of road traffic emissions of nitrogen dioxide and fine particulate matter albeit consideration has also been given to dust impacts during the construction phase.
- 5.59 The draft West Yorkshire Air Quality and Emissions Technical Planning Guidance (WYLEG, 2014) was followed to determine the potential air quality impacts during the construction and operational phases of the proposed development.
- 5.60 A qualitative construction phase assessment was conducted; the potential risk of nuisance and health impacts from dust was determined and appropriate mitigation measures were described. A detailed quantitative operational phase assessment was undertaken to determine the impact of the development on traffic derived pollutant concentrations. In addition, the air quality damage costs associated with the proposed development were calculated.
- 5.61 With regard to potential impacts during the construction phase, the assessment concluded that with appropriate mitigation measures (ie Construction Environmental Management Plan) impacts can be effectively controlled and managed through a planning condition, and so the residual impacts were considered to be negligible.
- 5.62 With regard to potential impacts during the operational phase, traffic derived pollutant (NO₂ and PM₁₀) concentrations were predicted at several sensitive receptors. The following provides a summary:

- The background pollutant concentrations at the proposal site are well below the relevant annual mean objectives.
- The largest impacts due to the development were predicted at receptors located on Bradford Road, near the junction with Mill Carr Hill Road and those on Cliff Hollins Lane, near to the site entrance. However, these impacts were not significant.
- No concentrations in excess of the relevant air quality objectives and limit values were predicted.
- A worst case sensitivity test was undertaken to take account of known uncertainties with regard the degree in which NO₂ concentrations will reduce in the future due to vehicle emission technology improvements.

5.63 Overall taking account of the modelling undertaken, including the sensitivity test, recent monitored trends, and the measures within the Framework Travel Plan to reduce emissions, the significance of the impacts was concluded to be negligible during the operational phase.

Residual and Cumulative Effects

5.64 The preparation of the ESA has been undertaken in parallel with the design process. As a consequence, many measures to mitigate likely significant adverse environmental effects have been incorporated into the Proposed Development design in order to avoid, reduce or offset such effects. As such, many mitigation measures have been 'designed in' and these have been set out in Chapter A4, and addressed throughout the ESA.

5.65 In this case 'designed in' mitigation includes adherence with the Parameter Plans, plateau levels, and adherence with the Remediation Strategy and Drainage Strategy.

5.66 However, additional mitigation measures have been proposed in relation to both construction and operation and these have been set out in each of the preceding technical chapters. These have been defined and clear and binding methods set out to ensure they are secured. A summary of these measures are set out below.

Table 5.1: Summary of Mitigation Measures

Topic Area	Measures	How it can be secured
Ground conditions, Air quality, Transport, Noise, Flood Risk and Drainage, Ecology	Construction Environmental Management Plan (CEMP)	Planning condition
Flood risk and drainage, and Ground Conditions	Drainage Strategy to secure detail of SUDs and foul drainage, with water efficiency measures to be included in detailed design	Planning condition

Ground conditions	Adherence to Remediation Strategy	Planning condition
Highways and Transport and Air Quality	Framework Travel Plan	Planning condition
Ecology	BEMP, lighting scheme and detailed design	Planning condition
Noise	Operational noise limits, traffic management plan, detailed design and detailed glazing design, noise assessment for 24hr operations including mitigation in detailed design	Planning condition
Landscape and visual	Securing landscape scheme	Planning condition

- 5.67 In addition, consideration has been given to the potential cumulative effects of the Proposed Development and other committed schemes that may come forward.

Table 5.2: Summary of Potential Cumulative Effects

Topic Chapter	Committed Scheme	Potential Cumulative Effects
Chapter A6 Socio-economic	Lindley Moor employment site and Slipper Lane employment site	Substantial Beneficial Employment Productivity Business Rates

- 5.68 Chapter A7 – Landscape and Visual Impact considered the possible effect of the highway improvements to the Junction 26 of the M62 as set out in the Kirklees Councils Local Plan. These proposals have not been confirmed, and therefore it is difficult to assess the potential effect. Based on the potential line as set out in the Kirklees Plan it is considered that this would affect views into the site and provide additional planting. There were no committed schemes of relevance to the other Chapters within the ES.
- 5.69 There are no significant adverse effects identified in the Cumulative assessments.

Residual effects

- 5.70 The following table summarises the significant environmental effects that would arise with mitigation in place:

Table 5.3: Summary of Significant Residual Effects

Topic	Stage	Description	Significance	Extent	Nature
				(L/R)	(D/I, T/P, ST/MT/LT, R/I)
Socio-economic	Construction	Employment – Local	Substantial beneficial	L	D/I, T,ST
		Economic Productivity - Local	Substantial beneficial	L	D/I, T,ST
	Operational	Business rates	Moderate beneficial	L	D/I, P,LT
Landscape and Visual	Construction	The Site	Moderate	L	D,T
		Batley Fringe Incised Valleys – Landscape Character area	Moderate adverse	L	D,T,LT,I
		Viewpoint 1 – Cliff Hollins Farm	Moderate adverse	L	D,T, LT, I
		Viewpoint 2 – Properties at grid references 417862 and 428084	Moderate adverse	L	D,T
		Viewpoint 3 – Bungalows on Cliff Hollins Lane	Moderate	L	D,T,LT,I
		Viewpoint 4 – Footpath with site / along access road	Major/moderate adverse	L	D,T,LT,I
	Operational	The Site	Moderate beneficial	L	D,P

	Batley Fringe Incised Valleys – Landscape Character area	Moderate adverse	L	D,P,LT,I
	Viewpoint 1 –Cliff Hollins Farm	Moderate neutral	L	D,P, LT,I
	Viewpoint 2 – Properties at grid references 417862 and 428084	Moderate/minor adverse	L	D,P,LT,I
	Viewpoint 3 – Bungalows at Cliff Hollins Lane	Moderate neutral	L	D,P,LT,I
	Viewpoint 4 – Footpath within site / along access road	Major/moderate adverse	L	D,P,LT,I
Ground conditions	No Significant effects identified			
Ecology	Invasive Species	Minor/moderate beneficial	L	D,T
	Invasive species	Minor moderate beneficial	L	D,P
Flood Risk and Drainage	No significant effects identified			
Highways and Transport	No significant effects identified			
Noise	No significant effects identified			
Air Quality	No significant effects identified			

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