# Stairfoot Brickworks

# Environmental Statement – Volume 4

## Non-Technical Summary

**Prepared for**

GREEN EARTH
DEVELOPMENTS GROUP

**Green Earth (Stairfoot) Ltd.**

**October 2025**
**3263-01-ES-NTS**

# Document Control

| Revision | Date | Prepared By | Reviewed / Approved By |
|---|---|---|---|
| 3263-01-ES-NTS | October 2025 | W T Chan | S Hayle |
| | | | |
| | | | |



Well House Barns, Chester Road, Bretton, Chester, CH4 0DH
1st Floor, Barfield House, Alderley Road, Wilmslow, SK9 1PL
Maling Exchange, Studio 307, Hoults Yard, Walker Road, Newcastle Upon Tyne, NE6 2HL

T: 0344 8700 007
enquiries@axis.co.uk
www.axis.co.uk

## CONTENTS



## FIGURES

# 1.0 INTRODUCTION AND BACKGROUND

## 1.1 Introduction

1.1.1 This Environmental Statement ('ES') has been prepared in support of a planning application made by Green Earth (Stairfoot) Limited, a wholly owned subsidiary of Green Earth Developments (Group) Limited (GEDG or the Applicant) in support of a planning application submitted to Barnsley Metropolitan Borough Council (the Council or BMBC). The application relates to the re-engineering of Yew Tree Quarry (the Site or the Application Site) through the importation of non-hazardous excavated soil materials and the restoration of the Site to grassland and woodland providing improved access and increased biodiversity (the Proposed Development) at land within the Stairfoot Quarry, Wombwell Lane, Stairfoot (the Quarry). The Site's location is shown on Figure NTS1.

1.1.2 This document is the Non-Technical Summary (NTS) of the Environmental Statement (ES) and provides a review of the development proposals, and the possible environmental implications and measures to reduce the likely impacts (mitigation measures), in concise lay terms.

1.1.3 The ES has been prepared in accordance with guidance and legislation that requires the likely significant environmental effects of developments to be assessed during construction, operation and decommissioning.

## 1.2 The Applicant

1.2.1 The Applicant, Green Earth (Stairfoot) Limited, a wholly owned subsidiary of Green Earth Developments (Group) Limited (GEDG) is a private limited, ethical development company that specialises in brownfield land restoration and re-purposing. GEDG are B Corp Certified, part of a global community of businesses that meet high standards of social and environmental impact. With their mission of 're-building nature and re-powering communities', GEDG is a leading developer of restoring underutilised and brownfield sites, renewable energy projects, community assets and natural capital projects including biodiversity net gain. To deliver their value-added regeneration projects with a strong partnership ethos, GEDG works collaboratively with a number of corporate landowners, government bodies and local authorities across the UK to help bring brownfield sites and underutilised land back into beneficial use.

## 1.3 Background to the Proposed Development

1.3.1 In 2023, the Applicant purchased the Quarry complex from Hanson UK who historically won clay mineral for the manufacture of bricks at the Quarry. The Quarry has largely been restored incrementally through a mixture of structure planting and natural self-seeding, but informal management has left the Quarry in a semi-redundant condition. The northern parts of the Quarry have historically been landfilled using a variety of disposal materials however, there remain two large quarry voids (one in the north and one in the south) which have filled with water over the passage of time. These voids have attracted unauthorised access and represent a real and present health and safety risk which needs addressing. The Application Site (Yew Tree Quarry) is regularly dewatered through pumping to ensure the depth of water is kept to a minimum for safety reasons.

1.3.2 The Applicant proposes to de-water and then infill this void with non-hazardous excavated soils and similar building reject material, to provide an appropriate sustainable landform. The restoration of the Site would provide a safe and attractive public space and offer the opportunity to generate significant Biodiversity Net Gain (BNG) for the local area.

## 1.4 The Site

1.4.1 The former Stairfoot Quarry complex (the Quarry) is circa 18 hectares of land located approximately 2km from the centre of Barnsley on the eastern edge of the town. The Application Site is approximately 5ha. The location of the Quarry and Application Site is shown on Figure NTS1 (Site Location). The area is largely residential, made up of a mix of semi-detached properties built between 1950 and 1975 (St Paul's Parade; St David's Parade; Roehampton Rise; Winchester Way; St Andrews Way and St Leonards Way). Further north is the A635 Doncaster Road which connects Barnsley in the west to Doncaster in the east. Directly to the northwest of the Quarry (accessed from Doncaster Road) is Oakhill Primary School, adjacent to which are a number of light industrial units and food outlet establishments.

1.4.2 The Stairfoot Roundabout connects the A635 and A633 to the northwest beyond which is the centre of the town. The A633 (Wombwell Lane) runs broadly north/south to the west of the Quarry and is straddled by a number of retail units and industrial buildings, along with a series of terraced properties fronting the eastern side of the

main road. Wombwell Lane runs north/south from the A6133/A633 Stairfoot Roundabout to the A6195/A633 Wath Roundabout at Brampton/Wombwell.

1.4.3 The Quarry is a linear feature running from the urban area of Barnsley to the northwest to the open countryside to the southeast. The land to the southeast of the Quarry is within the Metropolitan Green Belt which restricts further development from expanding east and helps prevent Barnsley coalescing with Wombwell, Darfield and Wath upon Dearn.

# 2.0 ALTERNATIVES

## 2.1 Introduction

2.1.1 Schedule 4 of the EIA Regulations identifies the information for inclusion in Environmental Statements. Paragraph 2 requires the following:

*"A description of the reasonable alternatives (for example in terms of design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including comparison of the environmental effects".*

2.1.2 It should be noted that the EIA Regulations place no statutory obligation on a developer to provide or exclude alternatives, but simply to describe the main alternatives that have been considered in the manner specified.

## 2.2 Reasonable Alternatives

2.2.1 There is no definition within the EIA Regulations as to what constitutes a "reasonable" alternative. The Cambridge English Dictionary defines "reasonable" as being; "…based on or using good judgement and therefore fair and practical."

## 2.3 Alternative Design Options

2.3.1 The Proposed Development has evolved since the pre-application stage. The initial proposals intended to restore both Yew Tree Quarry and North Quarry in order to address historical health and safety concerns associated with unauthorised access to the site. This would have required the importation of 800,000m$^3$ of material to be imported over a 4-year period. Following discussions with the local community and on receipt of pre-application advice, it was decided to remove the North Quarry restoration from the proposals[1].

[1] *North Quarry does not suffer from the same historical access by trespassers, and consequently could be excluded from the design whilst still allowing Yew Tree Quarry to be re-designed.*

# 3.0 SCHEME DESCRIPTION

## 3.1 Introduction

3.1.1 The Proposed Development comprises the restoration of Yew Tree Quarry. The Proposed Development would ensure the comprehensive restoration of the Quarry delivering biodiversity benefits and removing health and safety risks associated with the large waterbody.

## 3.2 Description of the Restoration Works

3.2.1 The current void and waterbody at the Site has, for a number of years, attracted the presence of unauthorised people, particularly in warmer weather. Trespassers have historically got into the Site and looked to swim in the unmanaged and uncontrolled water, and use the Site for a variety of unsociable activities. The Site has a series a deep quarry voids, and consequently the sides of the void are steep and the water extremely cold. They represent a serious risk to life for those who are unaware of the risks involved. In order to deter people from entering the water, the waterbody is regularly dewatered through pumping to ensure the depth of water is kept to a minimum. Over the years a number of other measures have been employed to try and prevent unauthorised access, including the erection of fencing and the planting of reeds and other peripheral growth.

3.2.2 In order to improve the long-term safety of the Site, and to provide an opportunity for improved biodiversity, the Applicant proposes to re-engineer the landform of the Site through the importation of non-hazardous soil materials, and then introduce a new restoration scheme.

3.2.3 The current topography of the Site is shown on Figure NTS2, to achieve appropriate restoration levels, approximately 400,000m$^3$ of non-hazardous soil materials would be imported over a period of 111 weeks. The material would comprise construction and excavation material with low polluting potential. All incoming material would be subject to strict acceptance criteria that would be set out within the Environmental Permit for the Site. The material would not include biodegradable waste and would therefore not require management of landfill gas, leachate or other general contaminant control.

3.2.4 Restoration works would only take place between 07:00 to 17:00, during weekdays, with movement of vehicles importing restoration materials occurring between 07:30 to 16:30. Saturday operations would be limited from 08:00 – 13:00, there would be no material deliveries during this time.

3.2.5 To estimate the traffic generating potential of the proposal, the following assumptions have been made:

i) The infilling scheme is forecast to involve the importation of circa 400,000m$^3$ of suitable, non-hazardous restoration material;
ii) It is assumed that material will be imported over a 111-week period;
iii) It is assumed that the typical payload of HGVs used to move the restoration material to the Site will be 9m$^3$;
iv) It is assumed that restoration work will be operating 5 days a week (Monday – Friday) throughout the year, and that importation of restoration materials would only occur on weekdays.

3.2.6 Using the above assumptions, the average number of two-way HGV movements on weekdays would be approximately 160 per day, or 18 two-way movements per hour.

3.2.7 The distance from which material would be imported to the Site would be dictated by market forces given that the cost of transporting soils by road makes it unviable over long distances. The Site would accept surplus soils generated from construction projects, under contract. These sites from where material would be sourced would be located within general proximity to the Site (typically closer than 30 miles from the site). It would simply not be economical to import material to the Site from beyond Barnsley, Doncaster, Sheffield and the southern hinterland of Huddersfield and Leeds.

3.2.8 It should be noted that import material would be sourced on a 'campaign basis[2]' and would therefore be variable and determined by the market and the availability of material. As such, there is likely to be some variability from the average daily HGV traffic forecasts set out above. However, it is anticipated that the number of HGVs to

[2] *Sites from where material would be sourced across the entirety of the operation will not be placed under contract ahead of commencement of work, rather major projects will come forward across the 111-week construction period within close enough proximity to the site for which contracts will be sought on a case-by-case basis. Whilst one or two construction sites are active, all material to the application site will be received from that site.*

the Site per day would not exceed 200 two-way trips (i.e. 100 arrivals + 100 departures) as a maximum. Volumetrically, this would equate to 22 two-way HGVs per hour, on average. Such a level of trip generation would not be sustained over a long period of time and would be offset by days which are less intensive.

## 3.3 Access

3.3.1 Access into the Site would be taken from the access used historically at the Site into the former Stairfoot Brickworks. This is taken directly via the A633 Wombwell Lane. As set out above, an enabling works planning application was approved by BMBC in September 2023 (ref. 2022/1218), which allows for a series of improvements to the existing access junction off Wombwell Lane. This enabling works application relates to a more recent full planning application, submitted by Potters Ballotini Limited, for the redevelopment of the former Stairfoot Brickworks site to comprise a glass recycling and repurposing facility (ref. 2024/0373).

3.3.2 Axis has liaised with the applicant team for the former Brickworks scheme in order to ensure that their redevelopment plans do not prejudice the right of way that the Site currently benefits from through this site, and to therefore ensure that safe and suitable means of access can be achieved to facilitate the Proposed Development. The proposed site access arrangements are illustrated in Figure NTS3.

## 3.4 Operations, Plant and Equipment

3.4.1 The phasing of the restoration works is shown on Figure NTS4. Restoration material would be tipped directly into the void and stockpiling of materials would not typically be expected to occur. Should site operations result in the requirement for stockpiling, this would only be for very short periods whilst works are in progress. This limited stockpiling, alongside the implementation of an Environmental Management Plan (EMP) which would set out appropriate measures to control and minimise windblown fugitive dust emissions, will safeguard the risk of dust and noise migrating off site. It is anticipated that the details of the EMP could be sought by Condition, and be provided post the grant of planning permission.

3.4.2 The Proposed Development would require the construction of a new temporary site compound (Figure NTS5) which would include a wheelwash, parking and welfare facilities (Figure NTS6).

3.4.3 It is proposed to use the following items of plant and machinery on site:

v) Dozers
vi) Roller
vii) 8 wheel road tipper HGVs

3.4.4 The mobile plant requirements would be reviewed in accordance with the site management requirements.

3.4.5 An acoustic fence is also proposed along the northern boundary with properties off St Pauls Parade. This would be a 2.1m to 2.4m high close-boarded screen along the boundary as indicated on Figure NTS7. The screen would have a minimum mass of 10kg/m2 and all gaps sealed below the screen and between panels, or panels and posts to minimise noise `break-out'.

## 3.5 Restoration

3.5.1 A restoration concept has been designed that delivers an appropriate level of Biodiversity Net Gain (BNG) i.e. development of the land so that it leaves biodiversity and ecological habitat in a measurably better state than before the development took place. It has also been designed to ensure that restored site provides the opportunity for improved public access and creates a long-term solution that is not incongruous with the local area. By removing the risk trespassers accessing the site and drowning, it allows for a new restoration scheme to be designed that both improves the wider appearance of the area and allows for structured and functional public amenity.

3.5.2 The Proposed Restoration scheme (Figure NTS8) would include neutral grassland, woodland and scrub planting.

## 3.6 Public Rights of Way

3.6.1 The TPT and Public Footpaths 323 and 324 are all located within or along the boundary of the Site.

3.6.2 The route of Footpath 323 crosses the Site in the vicinity of the compound area before running south-west along the eastern side of the access track. Footpath 324 splits off from Footpath 323 to the south of the Site compound area and routes in a

south-eastward direction along the southern edge of the Site boundary to connect to the TPT. The route of the TPT crosses the Site access track approximately 150m south-west of the Site compound area but otherwise is remote from the Proposed Development.

3.6.3 In order to safely manage the impact of the Proposed Development on these Public rights of Way (PRoW) routes, and to and ensure that the PRoWs can remain open to all users throughout the restoration period, it is proposed that a temporary diversion of Footpaths 323 and 324 would be implemented[3]. The route of Footpath 323 where it crosses the northern end of the Site access track would be fenced off to either side of the access track. The route of the temporary footpath diversion would follow existing footpaths through the woodland and fields to the west of the access track, as shown illustratively on Figure NTS9. Signage would be placed at key junction points along the PRoW network to advise of the temporary footpath diversion route.

3.6.4 The temporary PRoW diversion route would impact on users of Footpath 324, as they would be required to re-route along the TPT. However, as confirmed by the footpath survey undertaken (see Transport Assessment - Appendix 6.1) when having regard to the limited user numbers observed along this Public Footpath (i.e. 15 two-way movements per day) and the temporary nature of the diversion, this is considered to result in minimal disruption to users, and would be no less commodious that the current route option. It should also be noted that the TPT also provides users with a more user-friendly, and well surfaced route.

[3] *A temporary Traffic Regulation Order under the Road Traffic Regulations Act would be sought following the grant of planning permission*

## 4.0 SUMMARY OF EFFECTS

### 4.1 Scope of Assessment

4.1.1 BMBC provided the Applicant with their formal Scoping Opinion reference 2024/ENQ/00517. The Scoping Opinion contained BMBC's formal view on what should be assessed within the Environmental Statement, how the assessments should be carried out and what they should consider.

4.1.2 In parallel to formally scoping the application, the Applicant has been through a pre-application planning enquiry with BMBC to help inform the content of the planning application.

4.1.3 As a result of the scoping process and pre-application discussions, it was determined that the Proposed Development was unlikely to result in significant environmental effects in relation to:

i) Landscape and Visual Impact
ii) Air Quality
iii) Heritage and Archaeology
iv) Major incidents and disasters
v) Population, human health and climate change

4.1.4 Nonetheless, these topics are considered as part of the Planning Statement.

4.1.5 On this basis the Environmental Statement assessed the following topics in detail, the findings of which are summarised in this NTS:

i) Ecology and Biodiversity
ii) Transport and Access
iii) Noise
iv) Geology, Hydrology and Ground Conditions

### 4.2 Ecology and Biodiversity

4.2.1 Chapter 4.0 of the Environmental Statement considers the likely ecological effects of the proposed restoration of Yew Tree Quarry. The scheme involves filling the quarry void with inert, non-hazardous materials before restoring the land to grassland with

new shrub planting and areas for public access. The project will remove the current health and safety risks associated with the site in its current state and create opportunities for BNG by improving the site's ecological value.

4.2.2 The quarry and surrounding land contain a mix of habitats, including woodland, scrub, grassland, bare ground, and a pond. Previous survey work has shown that the site supports bats (using woodlands and ponds for feeding), a range of common breeding birds, and a local population of grass snake. Invertebrates were also present, though mostly common species, and surveys confirmed that great crested newts are absent. The site lies close to nationally and locally designated wildlife sites, including the Dearne Valley Wetlands Site of Special Scientific Interest (SSSI).

4.2.3 Considering the inclusion of incorporated mitigation within the proposed development it was assessed that significant impacts would still occur during the infilling phase in respect to:

- Broadleaved woodland; direct felling of woodland habitat to facilitate development.
- Priority ponds; direct loss of priority pond habitat to facilitate development.
- Breeding birds; potential destruction of active birds nests through scheduled vegetation clearance.
- Reptiles; potential for direct killing and injuring of grass snake via regular movement of vehicles and fragmentation of suitable habitat.

4.2.4 Additionally, it was assessed that significant impacts would still occur in the restored phase in respect to:

- Priority ponds; impacts to priority ponds as a result of increased disturbance and subsequent nutrient enrichment decreasing water quality and ecological value of the pond.
- Reptiles; Reduction in suitable basking and foraging habitat for the local population of grass snake.

4.2.5 The client has committed to a range of further mitigation and enhancement measures to reduce identified impacts, including:

- Production of an Environmental Management Plan (EMP) specifically relating to ecological features to safeguard habitats and species during works.
- Creation of new habitats designed to support reptiles and other fauna on site, including the incorporation of artificial hibernacula.
- Enhancement of an off-site priority pond to compensate for the loss of pond habitat on site.
- Inclusion of educational signage specifically providing details on ponds and reptiles.

4.2.6 Overall, the assessment has identified that without mitigation significant impacts are likely to occur as part of the proposed scheme. However, when including a range of incorporated mitigation measures that are imbedded within the scheme the potential for significant impacts is greatly reduced and only modest levels of additional mitigation are required to nullify the likely significant effects. Additionally, the client has committed to the recommended mitigation measures proposed and has taken the disciplines of ecology and arboriculture seriously throughout the process. It is assessed that once restored, the quarry will deliver a net improvement for biodiversity, contribute to local and national conservation objectives, and provide a safer and more attractive space for both wildlife and people.

## 4.3 Transport and Access

4.3.1 The Traffic and Transportation Chapter (Chapter 5.0) of the ES considers the environmental effects of the Proposed Development during the restoration period.

4.3.2 The Proposed Development would comprise the restoration Stairfoot Quarry over a period of 111 weeks. It is anticipated that the restoration period would commence in early 2026 and would last until early 2028. As such, the assessment compares the development-related traffic impacts measured against a future assessment year baseline of 2027.

4.3.3 The study area for the assessment includes the following road links:

- Link 1 – A633 Wombwell Lane (north); and
- Link 2 – A633 Wombwell Lane (south).

4.3.4 In accordance with the Institute of Environmental Management and Assessment (IEMA) Guidelines document *Environmental Assessment of Traffic and Movement* (July 2023), the significance of effects has been assessed by considering the interaction between the magnitude of the impact and the sensitivity of the receptor in the study area.

4.3.5 The IEMA Guidelines recommend two rules to be considered when assessing the impact of development traffic on a road link:

- *Rule 1: Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles (HGV) will increase by more than 30%); and,*
- *Rule 2: Include any other specifically sensitive areas where total traffic flows have increased by 10% or more.*

4.3.6 The above guidance is based upon research, knowledge, and experience of environmental effects of traffic, with less than a 30% increase generally resulting in imperceptible changes in the environmental effects of traffic. At a simple level, the guidance considers that projected changes in total flow of less than 10% creates no discernible environmental effect, hence the second threshold as set out in Rule 2.

4.3.7 The Proposal would generate a maximum of 160 daily two-way HGV movements. Changes in the overall daily traffic during the restoration period are well below the IEMA Rule 1 30% threshold on all links.

4.3.8 None of the links included in the study area were deemed to be of high sensitivity, so the IEMA Rule 2 10% threshold was not applied in this assessment.

4.3.9 The Proposal results in an increase in two-way HGV movements in excess of 30% on all links during one or more of the assessed time periods. However, this is predominantly reflective of the fact that baseline HGV flows are relatively low. In absolute terms, the Proposal will result in an increase of 2 HGV movements every 7-8 minutes on average along Wombwell Road to the north of the Site, and 2 HGV movements every 10 minutes along Wombwell Lane to the south of the Site. This is deemed to be a moderate adverse impact on all links.

4.3.10 The characteristics of these links have been considered, and it has been concluded that the sensitivity of receptors is negligible to low. It is therefore deemed to be a negligible or minor level of effect on all links, which is not significant in EIA terms.

4.3.11 The assessment has taken into account the cumulative effects of traffic associated with allocated and consented development sites in the vicinity of the study area. The effects remain not significant across the highway network.

4.3.12 It is proposed that a Delivery Management Plan would be prepared, which would set out the operational procedures to be adopted in order to safely manage the arrival and departure of HGV movements to and from the Site. This would also set out the proposed measures to be implemented in order to safely manage the interaction between the Site access track and the PRoW network, to ensure continuous safe access to the PRoW routes for all users throughout the restoration period.

4.3.13 No further mitigation measures are deemed necessary during the restoration of Stairfoot Quarry.

4.3.14 It can therefore be concluded that traffic-related environmental effects associated with the Proposal are not significant in EIA terms.

## 4.4 Noise

4.4.1 Chapter 6.0 of the ES, together with supporting Figures and Appendices, assesses the impact of the Proposed Development with regard to noise. It describes the methods used to assess the impacts, the baseline conditions that currently exist at the site and the potentially affected nearest sensitive receptors (`NSR'), nearest ecological receptors (`NSER') and nearest recreational receptors (`NRR'), the possible direct and indirect impacts arising from the Proposed Development and the mitigation measures that could be implemented to reduce noise impact from the proposal.

4.4.2 The two principal criteria to predict the significance of potential noise impacts are:

- magnitude of the impact; and
- sensitivity of the receptors

4.4.3 During the infill and restoration period of the development there would be mobile noise sources in use and noise levels would vary throughout the lifespan of the Proposed Development. The highest noise levels relative to NSR are likely to occur during Phases 4 and 5 when mobile plant is located at a higher land height datum and closest to the northern boundary of the Site.

4.4.4 The introduction of BPM mitigation measures has the effect of minimising noise levels at the NSR, NSER and NRR.

4.4.5 It is concluded that the operational noise with the implementation of mitigation measures, using best practical means, is likely to result in an impact magnitude classification of negligible at NSR and a neutral level of effect.

4.4.6 The impact at NSER is shown to be a negligible impact and not significant.

4.4.7 The impact at NRR with the proposed mitigation measures, is likely to result in an impact magnitude of between slight to moderate and minor to moderate effect during weekday operations and slight impact and minor level of effect on Saturdays along the PROW in proximity to the Site boundary and therefore not significant.

4.4.8 The change in noise levels as a result of the traffic associated with the Proposed Development would be negligible and as such represents a neutral significance on high sensitivity residential receptors. As such the impact is considered not significant in EIA terms.

4.4.9 There are no cumulative effects from other proposed or permitted developments to consider.

4.4.10 In summary, no significant noise effects have been identified by the noise assessment in relation to the Proposed Development. And the assessment shows that with appropriate mitigation measures there would be no significant impacts during the infill and restoration activities of the Proposed Development.

4.4.11 Noise levels have been considered and assessed during the infill and restoration phases of the Proposed Development. Relevant and appropriate noise guidance and standards have been used to determine the impact. The assessment has been undertaken to establish the impacts of the Proposed Development, such that any

likely noise impact on existing and potential NSR, NSER and NRR is within acceptable limits and no significant impacts are likely to occur.

4.4.12 To establish any likely impact from noise, an assessment of baseline sound levels has been considered by undertaking sound monitoring at the nearest residential receptor areas.

4.4.13 In accordance with appropriate standards, best practical means would be employed to control the noise generation during the operational period. Measures include, for example, restriction on operating hours, no HGVs on Saturday's, the use of broadband type noise reversing alarms and management controls of plant maintenance and operation.

4.4.14 The assessment shows that with appropriate mitigation measures there would be no significant impacts during the infill and restoration activities of the Proposed Development.

## 4.5 Geology, Hydrology and Ground Conditions

4.5.1 Chapter 7.0 of the ES, provide an assessment of the ground conditions at the Site, with specific reference to geological and hydrogeological aspects. It will identify a set of baseline conditions, assess any potential effects, and propose any mitigation and monitoring measures required.

4.5.2 An understanding of the local geologic regime has drawn upon a range of information sources including existing site reports, historical aerial imagery and British Geological Survey data to describe the geological and hydrogeological conditions immediately underlying and in the local environs of the Site.

4.5.3 The proposed development would result in the restoration of a partially infilled quarry void with uncontaminated soils. The Site and surrounding areas are devoid of any Superficial Deposits, with the solid geology comprising interbedded sandstones, mudstone and shales of the Pennine Middle Coal Measures. It is this strata that was worked for by the former brickworks, with associated mineral workings extending to the west and northwest of the Site.

4.5.4 The former quarry workings to the west and northwest have previously been restored via landfill activities, within waste deposits include household, commercial, industrial,

special and sludge wastes. These landfills were designed and constructed under the principles of dilute and disperse, although some leachate and landfill gas controls associated with the landfill area to the northwest. The proposed development would not impact the adjacent landfilled areas or significantly alter the risks posed by these facilities the local environment.

4.5.5 The nature of the wastes imported to restore the quarry and their deposit over existing fill materials would not present a significant risk to the groundwater resource associated with the Pennine Coal Measures aquifer, which is classified as a Secondary A aquifer.

4.5.6 The proposed development would be related by a permit issued under the Environmental Permit (England & Wales) Regulations 2016 (as amended). The Environmental Permit would implement monitoring schedules to validate design and associated risk assumptions. These are likely to include schedules to monitor changes in surface water quality, groundwater quality and hazardous ground gases. However, the nature of the restoration materials would not require any active in-waste management controls to be implemented e.g. leachate or landfill gas extraction.

# 5.0 CONCLUSION

## 5.1 Conclusion

5.1.1 The Proposed Development comprises the restoration of the Site through the importation of non-hazardous soil materials, and the introduction of a new restoration scheme. The material that would be imported comprises excavated non-hazardous soils from development sites in the local area. It is estimated that circa 400,000m3 of non-hazardous soil materials would be imported over a period of 111 weeks. This would equate to circa 80 HGV tippers on average per day.

5.1.2 The application has not been subject to formal screening; however, an ES has been volunteered by the applicant (and consequently the project is EIA Development). An ES has therefore been prepared in accordance with the EIA Regulations that provides a description of the reasonable alternatives studied by the developer, and an indication of the main reasons for selecting the chosen option. The Applicant has considered a number of potential alternative options and has confirmed why these have been discounted. The application site is considered to be the most appropriate option from a deliverability and environmental perspective, that can deliver the project objectives.

5.1.3 The ES provides a detailed description of the construction, operation and decommissioning of the Proposed Development and provides an assessment of likely significant effects which could arise in relation to the following topics:

i) Ecology and Biodiversity
ii) Transport and Access
iii) Noise
iv) Geology, hydrology and ground conditions

5.1.4 The assessment have demonstrated that the only likely significant effect on the local ecology would be the incorporated mitigation measures were insufficient to avoid adverse impacts (ranging from major to minor) at a local scale. Therefore, realistic and achievable ‘additional’ mitigation measures have been incorporated (as required by planning conditions) such that any residual adverse impacts can be rendered negligible; with some residual effects assessed a minor beneficial in the long term at the local level.

5.1.5 A small range of mitigation and enhancement measures are proposed which would ensure any adverse environmental effects from the Proposed Development are minimised.