



ENVIROARM LTD

APPLICANT:

BJ TIMMINS

SITE:

PINCHES (4) QUARRY

WILDMOOR LANE, WILDMOOR, BROMSGROVE

FOR:

**PROPOSED EXTRACTION OF SAND AND GRAVEL,
WITH PROGRESSIVE RESTORATION BY WAY OF
IMPORTATION OF INERT WASTE MATERIAL,
RETURNING THE SITE TO AGRICULTURAL USE**

Volume 1: Planning Statement

December 2019

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1. INTRODUCTION

1.1. PURPOSE OF THE ENVIRONMENTAL STATEMENT

- 1.1.1. This is a Planning Statement and comprises an overall Environmental Statement (ES).
- 1.1.2. The Environmental Statement consists of two Volumes:
 - ES Volume 1: Planning Statement (including summaries of each Technical Report; and
 - ES Volume 2: Technical Reports.
- 1.1.3. The Non-Technical Summary forms a separate document.
- 1.1.4. The above documents have been prepared to support a planning application for Pinches (4) Quarry (**the Site**) which is located near the village of Wildmoor, north of Bromsgrove.
- 1.1.5. It involves the extraction of approximately 1 million tonnes of sand and gravel, with progressive restoration by way of importation of inert waste material, returning the Site primarily to agricultural use (**the Proposed Development**).
- 1.1.6. Drawing PN1079-D15v1: The Site Location Plan (December 2019) identifies the Planning Application boundary which is c.5.2 hectares (ha) in size.
- 1.1.7. The full address of the Site is Wildmoor Lane, Wildmoor, Bromsgrove B61 0QN. The Site centre is located at approximately SO 396794 275686.
- 1.1.8. The ES has been compiled by Enviroarm Ltd. (**the Agent**) on behalf of BJ Timmins (**the Applicant**) who is the landowner of the Site. The Applicant owns the Pinches 1 Quarry site including the current access to the Pinches 3 site as shown on Drawing PN1079-D16v2: The Site Boundary and Area Under Control of the Applicant (December 2019). The latter is currently being restored (due to be completed in early 2020).
- 1.1.9. Worcestershire County Council (WCC) is the County Planning Authority (CPA) in this instance.

1.2. BACKGROUND TO THE PLANNING APPLICATION

- 1.2.1. The Site is located adjacent to the main area of Pinches 3 Quarry which is being restored through importation of inert materials in accordance with planning consent Reference No. 08/000055/CM (November 2009).¹ (Appendix P1) The latter includes an area of hardstanding including associated buildings currently used as a stockyard area and an access road which links to Wildmoor Lane and are located in the northern environs of the Site whilst, a section of the access road passes through the western edge of the Site.
- 1.2.2. Both the Site and Pinches 3 Quarry are part of a larger area of established quarrying activity known as Chadwich Mill Farm Sandpit, which has been operating since the late 1940s. Previous planning permissions have been

¹ Reference No. 08/000055/CM, Planning application for sand extraction and restoration by inert landfill, Pinches 3 Quarry, Wildmoor Lane (Date of Decision: 30 November 2009)

granted for quarry extensions to allow sand extraction, infilling the void with inert waste material and subsequent restoration to agricultural use.

- 1.2.3. The Site has previously been proposed as part of the WCC Emerging Minerals Local Plan process which is addressed in the Planning Statement. Most recently with regards to the Site, in January 2018, it was put forward in the WCC Fourth Call for Mineral Sites by Bright & Associates (B&A) on behalf of the Agent and Applicant.²
- 1.2.4. The following summarises subsequent steps taken in 2018:
- **February 2018:** Pre-application advice from WCC was sought during an initial meeting with B&A;
 - **July 2018:** B&A submitted a Request for Scoping Opinion³ to WCC which included an overview of the Proposed Development which was at a conceptual design stage at the time and addressed potential environmental effects. The Request was based a proposal for c.50,000 to 100,000 Tonnes Per Annum (TPA), requiring some 6 to 10 years to complete the Site and restoration to an agricultural land use. Background reports provided comprised an Agricultural Land Classification Report, Geology Report, Preliminary Ecological Assessment and Landscape and Visual Appraisal; and
 - **September 2018:** WCC issued their Scoping Opinion (reference 18/000040/SCO). Hereafter referred to as the Scoping Opinion (September 2018) (Appendix P2). It was based on proposed extraction of c.1 million tonnes of sand and gravel with subsequent restoration to original levels by infilling of c.650,000 cubic metres of inert materials (soils) and set out what information should be submitted as part of the planning application and included comments by consultees which are summarised in Appendix P4.
- 1.2.5. In the interim period, the Proposed Development has evolved and is described in detail in Section 4: The Proposed Development of ES Volume 1 and summarised below.
- 1.2.6. The Quarry Development Scheme has been designed by B&A and entails an operational sequence of eight stages, with the process of mineral extraction divided into three Phases. Drawings PN1079-D11v3 Sheet 1 to 8 (October 2019) are included in ES Volume 1 and present the series of extraction, infilling and progressive restoration.
- 1.2.7. Mineral extraction will involve approximately 1 million tonnes of sand and gravel over an estimated seven year period from the end of 2021 until the end of 2028. Progressive restoration will be through the importation of inert waste material from the end of 2026 to the end of 2034 for restoration completion. It should be noted that timelines provided in the ES are based on an assumption of a Spring 2021 start.
- 1.2.8. The sand and gravel reserve at Pinches (4) Quarry is an attractive commodity in the locality and minerals industry. A number of operators have expressed keen interest in using or potentially taking the site on. In particular, Appendix P3 includes a Statement of Operator Interest from the NRS Group to the Applicant.

² Site Promotion as part of the Worcestershire Emerging Minerals Local Plan, Call for Sites, Pinches 4 Quarry Wildmoor Lane, Wildmoor, Bromsgrove, B&A for Enviroarm Ltd. & BJ Timmins, January 2018

³ Pinches 4 Quarry, Wildmoor Lane, Wildmoor, Bromsgrove, B&A for Enviroarm Ltd. & BJ Timmins, Request for Scoping Opinion, July 2018

- 1.2.9. Mitigation measures comprise screen bunds and the grass seeding of slopes on the southern edge of Phase 1 together with progressive restoration.
- 1.2.10. The Restoration Scheme is illustrated by Drawing PN1079-D12v3: Restoration Masterplan (October 2019) and Drawing PN1079-D13v2: Illustrative Restoration Cross Sections (November 2019). This will return the majority of the Site to an agricultural afteruse and offer mixed areas of grassland, woodland and hedgerow planting. The stockyard area in the northern environs of the Site will be restored through the removal of associated infrastructure and ground profiles re-instated, it will be set aside for possible future development purposes.
- 1.2.11. Since the Scoping Opinion (September 2018) was issued, a public consultation event was held on 22 November 2019 at Bournheath Community Centre. Consideration has been given to the comments of consultees and attendees at the recent event in terms of the Quarry Development Scheme and mitigation measures incorporated into the Proposed Development which are described in this Planning Statement and assessed in the Technical Reports (ES Volume 2).

1.3. CONTENT OF THE ENVIRONMENTAL STATEMENT

- 1.3.1. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires that developments such as quarries which may result in significant environmental effects should include an Environmental Statement which presents the results of an Environmental Impact Assessment (EIA). This ensures that significant environmental issues and effects associated with the Proposed Development are considered as part of the planning application process.
- 1.3.2. The EIA Regulations set out the types of development which must be subject to an EIA. The Proposed Development relates to a sand quarry and falls under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Schedule 2, Part 2(a) Quarries, open cast mining and peat extraction. It exceeds the applicable thresholds and criteria as listed in Column 2 of the table in Schedule 2.
- 1.3.3. Planning Policy Guidance (Environmental Impact Assessment) provides further guidance regarding Indicative screening thresholds. Paragraph 58 states that EIA is more likely to be necessary for '*All new open cast mines and underground mines. Clay, sand and gravel workings, quarries covering more than 15 hectares or involve the extraction of more than 30,000 tonnes of mineral per year*'. (Reference ID: 4-058-20150326, Revision date: 26 03 2015)⁴
- 1.3.4. The Scoping Opinion (September 2018) acknowledged that although the Site was c.5.4ha (at the time), the extraction rate would be at least 100,000 TPA with extraction of about 1 million tonnes of sand over 6 to 10 years
- 1.3.5. The content of the ES has been based on information contained in the Scoping Opinion (September 2018).

⁴ Planning Policy Guidance (Environmental Impact Assessment), <https://www.gov.uk/guidance/environmental-impact-assessment>, sourced October 2019

- 1.3.6. The ES provides a description of the current Site context, the Proposed Development and also outlines any mitigation measures which will be incorporated.
- 1.3.7. The information provided in the ES will allow an assessment of the main effects due to the Proposed Development and whether any significant adverse effects have been identified.
- 1.3.8. Independent consultants have undertaken Technical Reports to establish the current baseline conditions and assess the Proposed Development. The Technical Reports have been carried out in line with current best practice which is defined in the individual reports.

Table 1.1: Technical Reports and Consultants

ISSUE	REPORT(S)	CONSULTANT
Air Quality	Air Quality Assessment (2019)	CERC
	Dust Management Plan (2019)	ECL
Biodiversity	Ecological Impact Assessment (2019)	ECO TECH Ecological Consultancy
Contaminated Land and Ground Stability	Environmental Setting and Site Design (2019)	Enviroarm Ltd.
	Hydrogeological Risk Assessment (2019)	Enviroarm Ltd.
	Preliminary Sources Study Report (2019)	TerraConsult
Cultural Heritage	Historic Environment Desk-based Assessment (2019)	Benchmark Archaeology
Health Impacts	Health Impact Assessment (2019)	ECL
Landscape and Visual	Landscape and Visual Impact Assessment (2019)	Bright & Associates
Noise	Noise Assessment (2019)	LF Acoustics Ltd.
Soils	Agricultural Land Classification Report (desk based study) (2018)	Richard Stock Soils and Agriculture
Transport	Transport Statement (2018)	SCP
Water Environment	Flood Risk Assessment (2019)	Caulmert Ltd.

1.4. STRUCTURE OF THE ENVIRONMENTAL STATEMENT

- 1.4.1. The ES consists of two Volumes and the Non-Technical Summary.
- 1.4.2. **ES Volume 1: Planning Statement** comprises the following Sections:
- **Section 1 (Introduction)** provides background information relating to the planning application and the format of the ES;
 - **Section 2 (Current Site Context)** describes the existing situation relating to the Site and environs;
 - **Section 3 (EIA Methodology)** summarises the methodology applied for the EIA;
 - **Section 4 (The Proposed Development)** outlines the proposals presented through the Quarry Development Scheme together with any mitigation measures which will be incorporated;
 - **Section 5 (Alternative Working Schemes)** addresses alternative options;
 - **Section 6 (Technical Reports Summary)** presents a review and the main findings of each Technical Report;

- **Section 7 (Planning Policy Context)** outlines the current Development Plan, other material considerations and emerging planning policy relevant to the planning application (as of October/November 2019);
- **Section 8 (Planning Assessment)** evaluates planning policy matters with regards to the current Development Plan, other material considerations and emerging planning policy and their application to the Proposed Development;
- **Section 9 (Cumulative Effects)** includes the findings of the Technical Reports with regards to potential cumulative effects; and
- **Section 10 (Sustainability Statement)** addresses economic, social and environmental matters.

1.4.3. Footnotes in the text provide reference sources.

1.4.4. The following Drawings are included in ES Volume 1:

- **Drawing PN1079-D15v1:** The Site Location Plan (December 2019);
- **Drawing PN1079-D16v2:** The Site Boundary and Area Under Control of the Applicant (December 2019);
- **Drawing PN1079-D17v1:** Topographic Site Survey (December 2019);
- **Drawing PN1079-D14v3:** Stockyard Arrangement and General Layout (December 2019);
- **Drawing PN1079-D11v3 Sheet 1 of 8:** Stage 1 Screen Bund and Site Preparation (October 2019);
- **Drawing PN1079-D11v3 Sheet 2 of 8:** Stage 2 Development of Phase 1 Extraction and Preliminary Seeding of Southern Extraction Slope (October 2019);
- **Drawing PN1079-D11v3 Sheet 3 of 8:** Stage 3 Development of Phase 2 Extraction and Seeding of Southern Extraction Slope (October 2019);
- **Drawing PN1079-D11v3 Sheet 4 of 8:** Stage 4 Development of Phase 2A Extraction Including Preparation for Phase 3 by Soil Stripping (October 2019);
- **Drawing PN1079-D11v3 Sheet 5 of 8:** Stage 5 Development of Phase 3 Extraction and Commencement of Infilling the Southern Sector (October 2019);
- **Drawing PN1079-D11v3 Sheet 6 of 8:** Stage 6 Completion of Phase 3 Extraction and Infilling for Restoration of Southern Sector (October 2019);
- **Drawing PN1079-D11v3 Sheet 7 of 8:** Stage 7 Continuation of Infilling for Restoration of Southern Sector (October 2019);
- **Drawing PN1079-D11v3 Sheet 8 of 8:** Stage 8 Completion of Restoration in Southern Sector and Infilling to Complete Northern Sector (October 2019);
- **Drawing PN1079-D12v3:** Restoration Masterplan (October 2019); and
- **Drawing PN1079-D13v2:** Illustrative Restoration Cross Sections (November 2019).

1.4.5. The following Appendices form part of ES Volume 1:

- **Appendix P1:** Relevant Site Planning Consents;

- **Appendix P2:** Scoping Opinion (reference 18/000040/SCO) issued by WCC (dated 6 September 2018);
- **Appendix P3:** Statement of Operator Interest (NRS Group);
- **Appendix P4:** Summary of Consultee Responses and where addressed in the ES;
- **Appendix P5:** Glossary, Abbreviations and References;
- **Appendix P6:** Table 6A - EIA Regulations (Schedule 4: Information for Inclusion in Environmental Statements); and
- **Appendix P7:** Table 7A - Consultants Expertise and Qualifications.

1.4.6. **ES Volume 2: Technical Reports** provides a full copy of the consultant reports which are being submitted as part of the planning application:

- **Appendix TR1:** Air Quality Assessment (2019) (CERC);
- **Appendix TR2:** Dust Management Plan (2019) (ECL);
- **Appendix TR3:** Ecological Impact Assessment (2019) (ECO TECH Ecological Consultancy);
- **Appendix TR4:** Environmental Setting and Site Design (2019) (Enviroarm Ltd.);
- **Appendix TR5:** Hydrogeological Risk Assessment (2019) (Enviroarm Ltd.);
- **Appendix TR6:** Preliminary Sources Study Report (2019) (TerraConsult);
- **Appendix TR7:** Historic Environment Desk-based Assessment (2019) (Benchmark Archaeology);
- **Appendix TR8:** Health Impact Assessment (2019) (ECL);
- **Appendix TR9:** Landscape and Visual Impact Assessment (2019) (Bright & Associates);
- **Appendix TR10:** Noise Assessment (2019) (LF Acoustics Ltd.);
- **Appendix TR11:** Agricultural Land Classification Report (desk based study) (2018) (Richard Stock Soils and Agriculture);
- **Appendix TR12:** Transport Statement (2018) (SCP); and
- **Appendix TR13:** Flood Risk Assessment (2019) (Caulmert Ltd.).

2. CURRENT SITE CONTEXT

2.1. DESCRIPTION OF THE SITE

- 2.1.1. The Site is located adjacent west of Junction 4 of the M5, whilst the A491 (Sandy Lane) is to the north.
- 2.1.2. The Site covers c.5.2ha with the Site centre located at approximately SO 396794 275686. Access to the Site is available from Wildmoor Lane which joins with the A491 (Sandy Lane).
- 2.1.3. Transport services, business parks and industrial/commercial areas can be found adjacent or in close proximity to the M5 corridor including near Junction 4.
- 2.1.4. The villages of Wildmoor (c.580m) and Fairfield (c.1.9km) are west of the Site, whilst Lydiate Ash is to the east and is broadly divided from the Site by the M5 motorway. Larger settlement areas can be found at further distance, with Upper Catshill and Lower Marlbrook, c.1km south. At a further distance in the same direction is Bromsgrove (c.5km). (Drawing PN1079-D15v1)
- 2.1.5. The Site is located within the West Midlands Green Belt.
- 2.1.6. The Site primarily comprises areas of rough grazing and abandoned scrub. The Agricultural Land Classification Report (desk based study) records that it is likely that individual fields include Grade 3b and non agricultural land, as opposed to Grade 3a Best and Most Versatile (BMV) agricultural land. (ES Volume 2, Appendix TR11). Internal field boundaries feature linear tracts of scrub and individual trees in places.
- 2.1.7. Existing external Site boundaries consist of a combination of fencing, hedgerows and scrub.
- 2.1.8. The north-western part of the Site features an area of hardstanding with offices and a wheel wash and is currently used as a stockyard and temporary HGV store. A tarmac/gravel access road leads from this area and passes through the western periphery of the Site before linking to Pinches 3 Quarry.
- 2.1.9. Existing Site levels are c.153mAOD near the Site entrance and are generally c.156mAOD to c.157mAOD in the north-western environs of the Site in terms of areas of hardstanding. In the northern part of the Site is a small knoll c.172mAOD and Site levels increase in a south-westerly direction to the hill formation (c.186mAOD) in the southern periphery of the Site. Drawing PN1079-D17v1: Topographic Site Survey (December 2019) provides survey details.
- 2.1.10. No watercourses pass through the Site which is located in Flood Zone 1 (low probability of flooding) according to Environment Agency Flood Mapping.⁵
- 2.1.11. No public footpaths are found within the Site. A section of the Monarch's Way long distance footpath passes along Wildmoor Lane, to the north-west of the Site.
- 2.1.12. Two communication masts are located adjacent to the southern Site boundary.

⁵ Flood map for planning, <https://flood-map-for-planning.service.gov.uk/>, sourced October 2019

2.2. DESCRIPTION OF THE SURROUNDING AREA

- 2.2.1. The immediate vicinity of the Site has a previous landuse of former quarries and landfills. Of note, to the south is Pinches 3 Quarry which is currently being restored and due to be completed in early 2020.
- 2.2.2. Existing minerals and waste management sites in the wider vicinity include:
- **Wildmoor Quarry:** an active sand quarry (c.1.2km west);
 - **Veolia Sandy Lane Western Quarry:** WCC issued a Scoping Opinion for the proposed importation of inert restoration material and the extraction of sand to enable engineering operations to take place and complete the restoration of the Western Quarry at Sandy Lane Quarry, (Reference No. 19/000009/SCO) in April 2019⁶ (c.1.4km west);
 - **Veolia Sandy Lane Eastern Quarry:** which has planning permission for infilling, but is currently inactive (c.1km west);
 - **Veolia Sandy Lane Landfill:** which has now been restored (c.1.3km west);
 - **Chadwich Lane Quarry:** a former sand quarry that has been restored (c.1.3km north-west); and
 - **Chadwich Lane Quarry Extension:** Planning permission (Reference No. 12/000036/CM), which had permitted reserves of c.1.28 million tonnes expired in December 2015 (c.1.3km north-west). A recent planning application (Reference No. 18/000036/CM) for the same area, Chadwich Lane Quarry Extension (also known as Land adjacent to former Chadwich Lane Quarry) regarding the proposed extension to restored quarry, infilling the void using inert materials and is currently under consideration by WCC.
- 2.2.3. In addition, the Bromsgrove Household Waste and Recycling Site is c.1.9km north of the Site off Money Lane (B4551).
- 2.2.4. The closest residential properties and farmsteads to the Site include to the south-west, Sidhdu Kinnerley (c.40m) and Chadwich Mill Farm (80m), to the north, Brookhouse Farm (c.120m) and Chadwich House (c.125m); and to the north-west, Cherry Tree Barn (c.160m) and Field Barn (c.180m).
- 2.2.5. The nearest environmental designations comprise:⁷
- **Site of Special Scientific Interest (SSSI):** Geological - Madeley Heath Pit SSSI (c.790m north-east) and Biological - Feckenham Forest SSSI (c.2.5km west) and Little Royal Farm Pastures SSSI (c.3.3km west);
 - **Local Wildlife Sites (LWS):** Broadmoor Wood & Chadwich Manor Ponds LWS (c.690m north-east) and Beacon Wood & Chadwich Wood LWS (c.675m north-east); and
 - **Ancient Woodland:** Beacon Wood comprising areas of Ancient Replanted Woodland and Ancient and Semi-Natural Woodland (c.660m north-east).

⁶ Reference No. 19/000009/SCO, The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Scoping Opinion, Proposed importation of inert restoration material and the extraction of sand to enable engineering operations to take place and complete the restoration of the Western Quarry at Sandy Lane Quarry, Sandy Lane, Wildmoor, Near Bromsgrove, Worcestershire, Decision Date: 2 Apr 2019

⁷ MAGIC Map, <https://magic.defra.gov.uk>, sourced October 2019

2.2.6. Cultural heritage designations include:⁸

- **Listed Buildings:** Grade II* Chadwick Manor (Reference 1348486) (north-east, c.685m) and Grade II Gate Piers East of No 61 (Reference 1099546) (south-east, c.180m), Lydiate Ash House (Reference 1301265) (south-east, c.195m), Farm Buildings Immediately West South West of Chadwick Manor House (Reference 1258022) (north-east, c.640m) and Gate Piers West of Chadwick Manor (Grade II) (Reference 1100360) (north-east, c.660m); and
- **Schedule Monument:** Moated site at Fairfield Court (c.2km west).

2.2.7. With respect to the local footpath network, public footpath 532(C) is to the south (c.140m) and links to other routes close to the M5 with Wildmoor Lane. Footpath 631 (C) is c.45m north-east just off the A491 (Sandy Lane).

2.3. RELEVANT SITE PLANNING CONSENTS

2.3.1. The following relevant planning consents apply to the Site and a copy of decision notices are provided in Appendix P1 in date order:

- **Reference No. 407122 (B13431)**, Extraction Of Sand And Infilling With Waste Materials Including Construction Of New Access; Land Adjoining Mill Farm Sand Pit, Wildmoor Lane (Date of Decision: Consented 16 June 1986)⁹;
- **Reference No. B19464 (407250)**, Proposed Phased Extension of existing sand extraction operations and subsequent restoration by landfill at Mill Farm Sandpit, Wildmoor Lane., Bromsgrove, Worcestershire, shown as Phases 1, 2 and 3 on submitted drawing No. 165/89/003 dated December 1989. (NB. Phase 1 Granted Phases 2 & 3 Refused) (Date of Decision: Consented 30 May 1991)¹⁰;
- **Reference No. 407382 (B96/0104)**, Recovery of selected delivered waste materials for recycling, Mill Farm Sandpits (Pinches), Wildmoor Lane (Date of Decision: Consented 24 May 1996)¹¹; and
- **Reference No. 08/000055/CM**, Planning application for sand extraction and restoration by inert landfill, Pinches 3 Quarry, Wildmoor Lane (Date of Decision: Consented November 2009).¹²

⁸ MAGIC Map, <https://magic.defra.gov.uk>, sourced October 2019

⁹ Reference No. 407122 (B13431), Extraction Of Sand And Infilling With Waste Materials Including Construction Of New Access; Land Adjoining Mill Farm Sand Pit, Wildmoor Lane, Bromsgrove, C H Pinches Ltd., Lindon Road, Brownhills, Walsall WS8 7BB, Hereford and Worcester County Council, Date of Decision: Consented 16 June 1986

¹⁰ Reference No. B19464 (407250), Proposed Phased Extension of existing sand extraction operations and subsequent restoration by landfill at Mill Farm Sandpit, Wildmoor Lane., Bromsgrove, Worcestershire, shown as phases 1, 2 and 3 on submitted drawing No. 165/89/003 dated December 1989, C.H. Pinches & Sons Ltd., Mill Farm Sand Pit, Wildmoor Lane, Wildmoor, Bromsgrove, Date of Decision: Consented 30 May 1991

¹¹ Reference No. 407382 (896/0104), Recovery of selected delivered waste materials for recycling, Mill Farm Sandpits (Pinches), Wildmoor Lane, Chadwick, Bromsgrove, Leigh Environmental Ltd., Dunston Hall, Dunston Stafford ST1 8 9AB, Hereford and Worcester County Council, Date of Decision: Consented 24 May 1996

¹² Reference No. 08/000055/CM, Planning application for sand extraction and restoration by inert landfill, Pinches 3 Quarry, Wildmoor Lane, Wildmoor, Bromsgrove B61 0RF, (Date of Decision: 30 November 2009)

2.4. GEOLOGICAL CONTEXT OF THE RESOURCE

- 2.4.1. The Site consists principally of the Chester Formation (formerly the Kidderminster Formation) sandstone with Wildmoor Sandstone to the south of the fault (Blackwell Fault). Geological mapping shows the drift cover to be thin or absent over most of the Site.
- 2.4.2. The mineral reserve consists of a brownish red sandstone which is medium to coarse grained. Based upon historic knowledge of Pinches 1 and 2 Quarries and more recently, the experience of the mineral reserve in Pinches 3 Quarry, the estimate of the mineral resource has been established. This is further endorsed by the borehole data provided in the Appendix TR4: Environmental Setting and Site Design (2019) (ES Volume 2) (see Appendix ESSD4)
- 2.4.3. Subsequent to initial reserve calculations in the Scoping Request (July 2018), the reserves which are recoverable at Pinches (4) Quarry are estimated to yield up to 1 million tonnes of sand and gravel.

3. EIA METHODOLOGY

3.1. INTRODUCTION

3.1.1. This Section outlines the general approach and methodology adopted for the EIA. The main objective is to ensure that sufficient and robust information is provided to allow a judgement to be made by the CPA.

3.1.2. In summary, the EIA has involved the following key stages:

- **Requirements of the EIA:** in terms of current EIA Legislation and the matters relating to the Proposed Development;
- **Review of the Scoping Opinion (September 2018) including consultee responses:** Appendix P4 includes the table of Consultee Responses and where they are addressed/or not in the ES; and
- **Baseline Studies:** collation and appraisal of the consultant reports to establish baseline environmental conditions and assess the Proposed Development. The findings of the Technical Reports are summarised in Section 6 of ES Volume 1 and are presented in full in ES Volume 2.

3.2. TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017

3.2.1. The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 requires that developments such as quarries which may result in significant environmental effects should include an Environmental Statement which presents the results of an Environmental Impact Assessment. This ensures that significant environmental issues and effects associated with the Proposed Development are considered as part of the planning application process.

3.2.2. The EIA Regulations set out the types of development which must be subject to an EIA. The Proposed Development relates to a sand quarry and falls under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Schedule 2, Part 2(a) Quarries, open cast mining and peat extraction. It exceeds the applicable thresholds and criteria as listed in Column 2 of the table in Schedule 2.

3.2.3. Planning Policy Guidance (Environmental Impact Assessment) provides further guidance regarding Indicative screening thresholds. Paragraph 58 states that EIA is more likely to be necessary for *'All new open cast mines and underground mines. Clay, sand and gravel workings, quarries covering more than 15 hectares or involve the extraction of more than 30,000 tonnes of mineral per year'*. (Reference ID: 4-058-20150326, Revision date: 26 03 2015)¹³

3.3. ASSESSMENT CRITERIA

3.3.1. The following assessment criteria has been adopted:

¹³ Planning Policy Guidance (Environmental Impact Assessment), <https://www.gov.uk/guidance/environmental-impact-assessment>, sourced October 2019

- **Major beneficial or adverse effect:** where the Proposed Development would cause a significant improvement or deterioration to the existing environment;
 - **Moderate beneficial or adverse effect:** where the Proposed Development would cause a noticeable improvement or deterioration to the existing environment;
 - **Minor beneficial or adverse effect:** where the Proposed Development would cause a barely perceptible improvement or deterioration to the existing environment; and
 - **Neutral/Negligible:** where no discernible improvement or deterioration to the existing environment will occur due to the Proposed Development.
- 3.3.2. Where individual assessment Sections contained in the ES diverge from these terms, the alternative terminology has been explained where appropriate.
- 3.3.3. The significance of the environmental impacts are identified, predicted and assessed with regards to receptors (e.g. human and environmental). This may be quantified in terms of being beneficial or adverse, direct, indirect, long term, medium term, short term, temporary or permanent which could be expected as a result of the Proposed Development.
- 3.3.4. Mitigation measures to be incorporated into the Proposed Development are included in the assessments unless stated in the Technical Reports (ES Volume 2).

4. THE PROPOSED DEVELOPMENT

4.1. INTRODUCTION

- 4.1.1. This Section outlines the Proposed Development and provides a description of the Quarry Development Scheme devised by B&A and represented by Drawings PN1079-D11v3 Sheet 1 to 8 (October 2019) which details the operational sequence (Stages) and process of mineral extraction (Phases).
- 4.1.2. The Proposed Development involves the proposed extraction of up to 1 million tonnes of sand and gravel, with progressive restoration by way of importation of inert waste material, returning the Site primarily to agricultural use.

4.2. OVERVIEW OF THE PROPOSED DEVELOPMENT

- 4.2.1. The Quarry Development Scheme entails an operational sequence of eight Stages. Mineral extraction is divided into three Phases, with Stages 5 to 8 being a landfilling process to achieve restoration.
- 4.2.2. The Southern Sector consists of Phases 1 to 2A and the Northern Sector comprises Phase 3. It is proposed that mineral extraction will take place to the following approximate base levels:
- **Southern Sector:** Phase 1 (c.175mAOD), Phase 2 (c.155mAOD) and Phase 2A (c.145mAOD); and
 - **Northern Sector:** Phase 3 (c.145mAOD).
- 4.2.3. The Quarry Development Scheme includes a number of key objectives:
- To **retain and preserve** the existing soils and return the area primarily to agricultural grassland;
 - The higher part of the Site in the south-western environs of the Site will be extracted in Phase 1 in preparation for **early temporary restoration** using grass seeding processes;
 - Mitigation measures include the Site being **restored in a progressive manner**, commencing with the Phase 1 area in Stage 5;
 - **Infilling** will entail the placement of imported sub soils to enable a full 1m depth rooting zone above other infill material. **Top soil** will then be spread from the bunds and any shortfall made up from imported soil material; and
 - The **proposed restoration contours and afteruse will complement** Pinches 3 Quarry which is in the process of being restored (due for completion in early 2020) and former quarry/landfill sites in the immediate vicinity (known as Mill Farm) and the wider landscape setting.
- 4.2.4. The current Site access will be used which leads directly onto Wildmoor Lane and links to the A491 (Sandy Lane).
- 4.2.5. Mineral processing will take place via mobile plant within the extraction area. The processed mineral stockyard area will be located in the north-western part of the Site in an area of existing hardstanding, with access onto Wildmoor Lane. Associated infrastructure will include a weighbridge, wheel wash and staff

welfare cabins and are shown in detail in Drawing PN1079-D14v3: Stockyard Arrangement and General Layout (December 2019).

- 4.2.6. Mitigation measures will include screen bunds sited along the northern edge of the stockyard (3m high) and along the eastern/north-eastern Site boundary (4m high), constructed from soil/overburden stripped from future working areas. They will be sparsely seeded with a 100% native species acid grassland mix. In addition, slopes will be grass seeded on the southern edge of Phase 1.
- 4.2.7. A progressive system of working and restoration is set out by the Phasing. Infilling will entail the placement of imported sub soils to enable a full 1m depth rooting zone above other infill material. Top soil will then be spread from the bunds and any shortfall made up from imported soil material.
- 4.2.8. The table below summarises the Quarry Development Scheme and outlines the extractive operations, infilling and mitigation measures involved. Based on the assumption that preliminary work will commence in Spring 2021, the Proposed Development will take 14 years to complete with final restoration taking place at the end of 2034.
- 4.2.9. Employment will entail quarry manager and deputy and other operatives. In all eight direct jobs will be created.
- 4.2.10. Hours of working are proposed to be 07.00hrs to 18.00hrs (Monday to Friday). 08.00hrs to 13.00hrs on a Saturday. No working on Sundays and Bank holidays.

Table 4.1: Quarry Development Scheme Summary

AMOUNT PER STAGE	ESTIMATED TIME PERIOD (YEAR)	DETAILS (EXTRACTIVE OPERATIONS, INFILLING AND MITIGATION MEASURES)
Stage 1 Screen Bund and Site Preparation (December 2019) (Drawing PN1079-11v3 Sheet 1 of 8)		
8000 cubic metres (m ³) for the soil bund providing 0.35m depth of soil strip (average)	Spring 2021	<ul style="list-style-type: none"> • Site infrastructure: In the north-western part of the Site, the stockyard area and yard area will be prepared with weighbridge, wheel wash and staff welfare cabins. • Mitigation Measures: 3m high bund on northern edge of stockyard with 1:1 outer slope gradient and a 4m high (soil storage) bund along the eastern/north-eastern Site boundary with 1:2 outer slope gradient. They will be constructed from top soil stripped from future working area in the southern sector.
Stage 2 Development of Phase 1 Extraction and Preliminary Seeding of Southern Extraction Slope (December 2019) (Drawing PN1079-11v3 Sheet 2 of 8)		
c.100,000 tonnes of mineral	End of 2021	<ul style="list-style-type: none"> • Extractive Operations: Higher area of hill to be extracted in Phase 1 in preparation for early temporary restoration using grass seeding processes. Approx. base 175mAOD. • Mitigation Measures: As above. In addition, grass seeded slopes on the southern edge of Phase 1.
Stage 3 Development of Phase 2 Extraction and Seeding of Southern Extraction Slope (December 2019) (Drawing PN1079-11v3 Sheet 3 of 8)		
c.500,000 tonnes of mineral	Spring 2025	<ul style="list-style-type: none"> • Extractive Operations: mineral extraction continues into Phase 2 in the southern sector. Approx. base 155mAOD. • Mitigation Measures: As above. In addition, grass seeded slopes on the southern edge of Phase 1 progresses.
Stage 4 Development of Phase 2A Extraction Including Preparation for Phase 3 by Soil Stripping (December 2019) (Drawing PN1079-11v3 Sheet 4 of 8)		

AMOUNT PER STAGE	ESTIMATED TIME PERIOD (YEAR)	DETAILS (EXTRACTIVE OPERATIONS, INFILLING AND MITIGATION MEASURES)
c.100,000 tonnes of mineral	End of 2025	<ul style="list-style-type: none"> • Extractive Operations: Extraction process in Phase 3 to develop quarry area to maximum depth (Approx. base 145mAOD) and prepare clay seal for importation of inert fill. In last year of extraction in Phase 2A, Phase 3 extraction area will be stripped of top soil in preparation for ongoing extraction. • Mitigation Measures: As above. In addition, area of soil storage from Phase 3 preparation, to be merged into existing 3m high bund on northern edge of stockyard.
Stage 5 Development of Phase 3 Extraction and Commencement of Infilling the Southern Sector (December 2019) (Drawing PN1079-11v3 Sheet 5 of 8)		
c.200,000 tonnes of mineral and 80,000 tonnes of infill	End of 2026	<ul style="list-style-type: none"> • Extractive Operations: Phase 3 extraction to continue to develop in the northern sector. Approx. base 145mAOD. • Infilling: in the southern sector to continue to raise overall ground level. Approx. infill level 155mAOD. Former quarry are undergoing restoration through infilling process. • Mitigation Measures: As above. In addition, grass seeded slopes on southern edge of the Site retained until infilling exceeds levels.
Stage 6 Completion of Phase 3 Extraction and Infilling for Restoration of Southern Sector (December 2019) (Drawing PN1079-11v3 Sheet 6 of 8)		
	End of 2028	<ul style="list-style-type: none"> • Infilling: In the northern sector, Phase 3 to be prepared for infilling following the completion of extractive operations. Infilling in the southern sector to continue to raise overall ground level. Approx. infill level 163mAOD. • Mitigation Measures: As above.
Stage 7 Continuation of Infilling for Restoration of Southern Sector (December 2019) (Drawing PN1079-11v3 Sheet 7 of 8)		
	End of 2032	<ul style="list-style-type: none"> • Infilling: Northern sector (Phase 3) to be infilled and restored using top soil in store. Infilling in the southern sector (Phase 1 to 2A) to continue to raise overall ground level. • Mitigation Measures: temporary grass seeded slopes on southern edge of the Site merged into overall landform.
Stage 8 Completion of Restoration in Southern Sector and Infilling to Complete Northern Sector (December 2019) (Drawing PN1079-11v3 Sheet 8 of 8)		
	End of 2034 for restoration completion	<ul style="list-style-type: none"> • Infilling: Northern sector (Phase 3) to be infilled and restored using top soil in store from screen bund along eastern/north-eastern Site boundary. • Final Restoration: Southern sector (Phase 1 to 2A) undergoing final restoration.

4.3. RESTORATION SCHEME

- 4.3.1. The Restoration Scheme is illustrated by Drawing PN1079-D12v3: Restoration Masterplan (October 2019) and Drawing PN1079-D13v2: Illustrative Restoration Cross Sections (November 2019) shows Section 1 to 3.
- 4.3.2. The mixed areas of grassland and woodland restoration will be restored in a phased (sequential) pattern.
- 4.3.3. The proposed restoration contours range from c.155mAOD in the northern part of the Site rising to c.185mAOD on the southern edge of the Site and are comparable to the natural landform.

- 4.3.4. The restoration strategy is to retain and preserve the existing soils and return the area to agricultural grassland.
- 4.3.5. The proposed restoration contours and afteruse complement the restored Pinches 3 Quarry and other quarry/landfill sites in the vicinity.
- 4.3.6. The Site will be restored primarily to agricultural fields (Fields 1 to 3) with proposed native hedgerows (c.1km linear length) and intermittent hedgerow trees established around the field boundaries as shown on the Restoration Scheme (Drawing PN1079-D12v3). Small blocks of native broadleaf woodland will be located on the north-eastern edge of the Site, between Fields 2 and 3 and on the south-western periphery of the Site (0.2ha).
- 4.3.7. Areas of acid grassland will be included for habitat diversity and ecological enhancement. This habitat will be created using low fertility sandy substrates and allowed to vegetate naturally.
- 4.3.8. Surface water ditches and a pond together with associated wetland areas will provide satisfactory drainage and flood control. A flood control basin and pond will be located in the north-western periphery of the Site which will link to the associated drainage ditches along the edge of the field boundaries.
- 4.3.9. The location of security and field gates is shown at the Site entrance and to the individual fields on Drawing PN1079-D12v3.
- 4.3.10. The access road will remain in situ to provide access to the Site and the restored Pinches 3 Quarry adjacent to the south. The former stockyard area will be restored through the removal of associated infrastructure and ground profiles will be re-instated, it will be set aside for future possible development purposes.
- 4.3.11. Aftercare will be undertaken for a period of five years.

4.4. PUBLIC CONSULTATION

- 4.4.1. The Site has been actively promoted through the Emerging Mineral Local Plan site evaluation process. Thus, the presence of the Site and future development intentions of the Applicant are recognised at a local 'community group' level.
- 4.4.2. Section 4 of the NPPF (2019) regarding decision-making, notes the importance of applicants involving the local community and statutory and non-statutory consultees, before submitting planning applications (paragraph 40).
- 4.4.3. A public consultation event was held on 22 November 2019 at Bournheath Community Centre between 12 (noon) and 7.30pm. Representatives of the Applicant attended and illustrative material demonstrated the Stages of the development and the restoration proposals.
- 4.4.4. The following individuals/groups were contacted and invited to the event:
- County and District Councillors whose Ward includes the Site;
 - Bournheath, Belbroughton and Fairfield Parish Councils were also contacted with the date and location information;
 - Leaflet drops to local residents close to the Site on Wildmoor Road, Sandy Lane, Top Road and Middle Road; and
 - The Wildmoor Residents Association was also informed of the event by email.

- 4.4.5. The preparation of the ES has taken into account consultee comments made in the Scoping Opinion (September 2018). In addition, early contact with The Wildmoor Residents Association was offered at a preliminary stage of the assessment process.
- 4.4.6. Most comments made by stakeholders in terms of the Scoping Opinion (September 2018) and during the recent public consultation event relate to issues that are common to the quarry industry, including concerns regarding mud on the road, traffic, working hours and noise issues. The assessment process that has been undertaken has resolve and mitigate identified impacts. These are set out and addressed in the specialist Technical Reports (ES Volume 2) to ensure compliance to current standards and working practices.

5. ALTERNATIVE WORKING SCHEMES

- 5.1.1. The Site has previously been put forward as part of the Emerging Minerals Local Plan with conceptual phase areas.
- 5.1.2. Since the Scoping Opinion (September 2018) was issued, the design has evolved. Option designs have involved differing phase areas and sequencing. These have been considered against potential environmental effects, particularly in relation to noise and visual impacts.
- 5.1.3. Design options were considered to extract the sand process in an alternative pattern i.e. north to south. However, the submitted scheme represents the optimum operational design and offers effective mitigation measures. It is reliant upon establishing the quarry to enable working (extraction) to continue at ground levels lower than the surrounding terrain and thus, beyond immediate sound and sight issues for sensitive receptors.

6. TECHNICAL REPORTS SUMMARY

6.1. INTRODUCTION

- 6.1.1. This Section presents a summary of the Technical Reports which are provided in full in ES Volume 2. Mention is made to the scope of reports, legislation, relevant guidance and best practice and the assessment methodology involved together with report findings.
- 6.1.2. The Technical Reports take account of the baseline situation and the mitigation measures described in the Planning Statement. Reference is made to cumulative effects where applicable and the results are also summarised in Section 9 for ease of reference. An acknowledgment is made to whether specific reports were carried out prior to the most recent series of Drawings which accompany this Planning Statement.

6.2. AIR QUALITY

Air Quality Assessment (2019)

- 6.2.1. The Air Quality Assessment (2019) has been carried out by Cambridge Environmental Research Consultants Ltd. (CERC).¹⁴ The report was issued in February 2019 and refers to an earlier Concept Quarry Development Scheme than is presented in the Planning Statement. The report is included in Appendix TR1 and a summary of findings are provided below.
- 6.2.2. The Air Quality Assessment comprises a screening assessment of general air quality impacts and a dust impact assessment of the quarry operations. It takes account of matters raised in the Scoping Opinion (September 2018) including cumulative effects.
- 6.2.3. Guidance for the air quality screening assessment is based on Institute of Air Quality Management (IAQM)/Environmental Protection UK (EPUK) guidance, Land-Use Planning & Development Control: Planning for Air Quality¹⁵ and Worcestershire Regulatory Services (WRS) Technical Guidance Note for Planning¹⁶. The dust impact assessment is based on the IAQM Guidance on the Assessment of Mineral Dust Impacts for Planning.¹⁷
- 6.2.4. The assessment takes account of the following mitigation measures incorporated into the Proposed Development:
- Bunds along the north-western boundary of the stockyard and the south-eastern Site boundary (c.3m high);
 - Dust filters on equipment, where possible;
 - Water sprays;
 - Wheel washes;
 - Protection of materials and active work areas from wind;
 - Restriction of dust-creating activities to certain times or locations;

¹⁴ Air Quality Assessment, Proposed Extension Of Quarry, Wildmoor, Bromsgrove, Final report, Cambridge Environmental Research Consultants Ltd., February 2019

¹⁵ Institute of Air Quality Management, Land-use Planning & Development Control: Planning for Air Quality (v1.2), 2017

¹⁶ Worcestershire Regulatory Services, Technical Guidance Note for Planning (v.4.0), August 2017

¹⁷ Institute of Air Quality Management, Guidance on the Assessment of Mineral Dust Impacts for Planning, 2016

- Hard surfacing of same internal roads; and
- Seeding of restored areas.

6.2.5. Sensitive receptors identified include:

- **Residential properties:** Sidhdu Kinnersley, Chadwich Mill Farm, Brookhouse Farm, Chadwich House, Chadwich Mill Cottage, the closest residential property on eastern side of M5, Cherry Tree Barn, Wayside, Hillcot, Oak Cottage and Chadwich Heights;
- **Nature Conservation Sites:** There are no Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites in the vicinity of the Site. No Sites of Special Scientific Interest (SSSI) considered as a specific sensitive receptor due to their distance from the Site (i.e. Madeley Heath Pit SSSI c.1.3km north-west and Feckenham Forest c. 2.5km west). Local Wildlife Sites and Ancient Woodland sites are all located significantly further than 250m from the Site; and
- **Other relevant receptors:** Wildmoor Oak pub/restaurant.

6.2.6. A screening assessment was carried out to assess the need for a more detailed assessment, for general air quality impacts. These impacts were screened out at this stage.

6.2.7. A second screening assessment was undertaken to assess the need for a detailed assessment of deposited dust and fugitive Particulate Matter (PM₁₀) impacts of emissions from the Site. These impacts were not screened out, and detailed assessment of dust impacts was carried out. The assessment methodology was based on the IAQM Mineral Dust guidance and other guidance where relevant. The dust impact assessment considered two types of emissions:

- a) **Large deposited particles:** commonly referred to as 'dust', which have the potential to cause annoyance, disamenity, or ecological harm due to the deposition of dust onto surfaces; and
- b) **Small particulate matter:** with a cross-sectional diameter of less than 10 micrometres (PM₁₀), which are inhalable, and therefore pose a risk to human health.

6.2.8. The report notes the following conclusions:

- **Deposited dust:** in terms of the magnitude of the likely residual dust effects for each individual receptor; a Negligible effect was predicted for all sensitive receptors; and
- **PM₁₀ health effects:** the Site is not close to an Air Quality Management Area (AQMA), and the annual average background levels of PM₁₀ are relatively low. The fact that the quarry will be extracting and processing sand means that high Process Contributions are unlikely. It is therefore concluded that the PM₁₀ air quality effect is insignificant.

6.2.9. The report assesses cumulative impacts in line with current IAQM Mineral Dust guidance and finds:

- The phased nature of the operations means that only a small area of the whole quarry site will be active at any one time, meaning that cumulative impacts from the quarry will be minimised;
- As previously discussed, the Site is close to other mineral sites. Much of these other sites are currently inactive, and have either been

restored, are about to undergo restoration, or do not currently have planning permission for extraction;

- The Site in which active mineral (sand) extraction is taking place, Wildmoor quarry, is located around 1.3km to the west of the Proposed Development. Adverse dust impacts from sand quarries are considered to be highly unlikely at distances over a few hundred metres; the IAQM Mineral Dust guidance states that “From the experience of the Working Group, adverse dust impacts from sand and gravel sites are uncommon beyond 250m”; and
- It is therefore considered that cumulative effects from other nearby sources are unlikely to lead to a significant impact on the sensitive receptors. (page 31)

6.2.10. Taking into account the outcomes of the dust assessment and all of the factors considered during the assessment process, including mitigation measures and cumulative impacts, it is concluded that the overall dust impacts are ‘not significant’ which corresponds to the EIA impact significance criterion of ‘Neutral’.

Dust Management Plan (2019)

6.2.11. A Dust Management Plan (2019) has been prepared by ECL.¹⁸ The report was issued in March 2019 but does not make specific reference to earlier Concept Quarry Development Schemes. The report is included in Appendix TR2 and a summary of findings are provided below.

6.2.12. The Dust Management Plan outlines the dust control measures to assess, reduce and prevent potential dust emissions and provides the dust monitoring measures required for the Proposed Development. It takes account of matters raised in the Scoping Opinion (September 2018).

6.2.13. It has been prepared to ensure that:

- The impact of dust is considered as part of the routine inspections of the quarry;
- Dust is controlled at source by sound operational practices which include both physical measures and good management measures; and
- All appropriate measures are taken to prevent, or reduce dust emissions to air from the Site at potentially sensitive receptors.

6.2.14. Dust sources identified in terms of operations within the Site include:

- Site preparation (overburden removal, berm construction, rehabilitation);
- Mineral extraction (front-end loader loads at the extraction face, transfer of material to the processing plant, loading of quarry trucks);
- Mineral processing (screening and/or crushing at the processing plant);
- Loading of processed aggregate (front-end loader loads to highway transport vehicles); and
- Transport off site.

6.2.15. The primary potential sources of dust emissions are:

¹⁸ Dust Management Plan, Pinches 4 Quarry, Wildmoor, Bromsgrove Worcestershire, ECL Ref: ECL.058.01.01/DMP, Version: Draft, March 2019

- Aggregate crushing and screening;
- Unpaved and paved site haul roads;
- Truck loading; and
- Wind-blown dust from stockpiles and exposed faces.

6.2.16. Consideration is given to sensitive receptors and the closest residential properties identified comprise Sidhdu Kinnersley, Chadwich Mill Farm, Brookhouse Farm, Chadwich House and Cherry Tree Barn. No public footpaths run through the Site. A section of the Monarch's Way long distance footpath passes along Wildmoor Lane, adjacent to the north-west of the Site.

6.2.17. Physical and management measures will be used to prevent or minimise dust emissions are summarised in the table below. Monitoring and reporting processes together with complaint procedures to be adopted are outlined in Section 4 and 5 respectively of the report.

Table 6.1: Dust Control Measures

AREA/OPERATION	CONTROL MEASURES
Mineral crushing and screening	<ul style="list-style-type: none"> • The material being processed will be damp and therefore, dust lift off is deemed unlikely. However, in dry and windy conditions and/or if the Site Manager or Crushing Operator observes visible dust emissions as a result of the operation of the processing equipment, water suppression methods will be employed. • Equipment will be fitted with dust filters where required.
Unpaved Roads	<ul style="list-style-type: none"> • A water bowser will be available to spray water on unpaved internal haul routes. The bowser will be equipped with a spray bar to evenly distribute water over the unpaved road. • Water supply will be available from the mains supply and the bowser will be filled to capacity each hour if required during dry conditions. • The delivery rate of water will vary depending on the surface moisture conditions, traffic conditions and weather conditions. Water suppression will be deployed whenever the Site Manager or Site Operator observes any site vehicles producing a trailing cloud of dust greater than 1m. • Haul routes will be maintained to prevent the accumulation of fine material on the haul route.
Hard Surfaced (Paved) Roads	<ul style="list-style-type: none"> • The section of internal haul road extending from the public road to the weighbridge of the Site shall be hard surfaced. • The water bowser will be capable of spraying the paved roads, as well as the entrance to the Site off the A491 as needed. • The delivery rate of water will vary depending on the surface moisture conditions, traffic conditions and weather conditions. Water suppression will be deployed whenever the Site Manager or Site Operator observes any site vehicles producing a trailing cloud of dust greater than 1m. • The bowser will be equipped with a spray bar to evenly distribute water over the unpaved road. • Water supply will be available from the mains supply and the bowser will be filled to capacity each hour if required during dry conditions. • Haul routes will be maintained to prevent the accumulation of fine material on the haul route. • A wheel wash will be provided at the quarry exit to minimise mud and fine material being transported onto the public highway. • If required, a wet or vacuum sweeper may be used to clean paved surfaces.
Truck Loading	<ul style="list-style-type: none"> • Truck loading will be suspended if the Site Manager/Site Operative observes dust generation and is being blown in the direction of the previously identified potentially sensitive receptors if the wind speed is >30km/hour or at a speed sufficient to cause wide-spread visible emissions off site.
Wind Erosion of Exposed Faces or Stockpiles	<ul style="list-style-type: none"> • Extraction shall be suspended if the condition of the quarry face is dust generating and is being blown in the direction of the previously identified potentially sensitive receptors if the wind speed is >30km/hour or at a speed sufficient to cause wide-spread visible emissions off site.

AREA/OPERATION	CONTROL MEASURES
	<ul style="list-style-type: none"> • Wind forecasts will be monitored regularly to anticipate the need for cessation of extraction and operational planning. • The water bowser will be capable of undertaking dust suppression of stockpiles if personnel observes the material to be dust generating and is being blown in the direction of the previously identified potentially sensitive receptors if the wind speed is >30km/hour or at a speed sufficient to cause wide-spread visible emissions off site.
Screening	<ul style="list-style-type: none"> • A 3m high bund will be constructed on the northern edge of the stockyard and around the eastern Site boundary constructed from soil/overburden stripped from the future working area.
General Dust Controls	<ul style="list-style-type: none"> • Daily site inspections will be undertaken and logged in the Site diary. The frequency of site inspections will be increased during periods of dry and/or windy conditions. • All vehicles engines will be switched off when not in use. • Where possible, vehicle exhausts will be fitted facing away from the ground.

6.3. BIODIVERSITY

6.3.1. An Ecological Impact Assessment (2019) has been carried out by Eco Tech Ecological Consultancy.¹⁹ The report was issued in December 2019 and references the Quarry Development Scheme presented in the Planning Statement. The report is included in Appendix TR3 and a summary of findings are provided below. It takes account of matters raised in the Scoping Opinion (September 2018).

6.3.2. The initial survey was undertaken between April and August 2017. The Great Crested Newt (GCN) survey was carried out in April to June 2018 and a further walkover to identify and update any significant changes was undertaken in November 2019.

6.3.3. Habitats and species are evaluated. Potential sources of impact on features of nature conservation importance are outlined and predicted effects of the development are described. The significance of these effects is defined and mitigation, compensation and enhancement measures proposed. Any residual effects following such measures are identified. Legal obligations in regard to protected and invasive non-native species are also considered.

6.3.4. Information used in the production of the report was derived from the following surveys:

- Phase 1 habitat survey (Joint Nature Conservation Committee (JNCC), 1993) with target notes;²⁰
- Incidental vascular plant species records;
- Incidental invertebrate/butterfly records and assessment for likely valuable habitat;
- Great crested newt (gcn) survey comprising 4 visits to government/Natural England guidance²¹ (See Appendix 2 of the report);

¹⁹ Ecological Impact Assessment, Pinches (4) Quarry, Nr Bromsgrove, Eco Tech Ecological Consultancy, December 2019

²⁰ Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit, Joint Nature Conservation Committee, 1993

²¹ Government/Natural England guidance, <https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects>, sourced June 2019

- Reptile survey comprising the placement of 100 refuges and subsequent checking of these in suitable weather conditions on 6 occasions. (See Appendix 2 of the report);
 - Incidental bird records;
 - Bat survey comprising (assessment for potential roost sites essentially as per Collins, J. (ed.), 2016);²²
 - Badger survey comprising a search for signs of activity and setts within the application area and within some 30m of its boundary (where access was possible).
- 6.3.5. Existing ecological information was obtained from the Worcestershire Biological Records Centre (WBRC) with regard to statutory and non-statutory sites and notable species records within some 1km of the application area boundary. Habitat and species evaluation essentially follows a simplified version of the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment (2018).²³
- 6.3.6. In order to assess impacts arising from a particular development, it is necessary to establish the nature conservation value of each feature/receptor (e.g. habitats or species) likely to be affected by the proposals, both within and adjacent to the development area. The value or potential value of each feature identified is evaluated according to its importance in a geographical context, as follows: International, National (England), County (Worcestershire), Site (the site or a larger area if impacts extend further for certain features) or of negligible value/importance.
- 6.3.7. The CIEEM guidelines suggest that value assigned to a feature should be a matter of professional judgement based on statutory requirements and policy objectives for biodiversity. These include the key sites, habitats and species for nature conservation in the UK (see CIEEM, 2018 for more detail).
- 6.3.8. Individual species that are protected under European or National legislation are evaluated as above, but with the additional consideration of legal obligations.
- 6.3.9. Currently the Site comprises primarily species-poor semi-improved grassland, with patches of ruderal tall herb, ephemeral/short perennial vegetation and dense scrub (some arising from overgrown former hedges). There is also an area of bare ground that was used for pipe storage in 2017 and now supports some disused portable cabins.
- 6.3.10. The report makes the following conclusions:
- Within the application area, the only feature considered to be of value (in a site context) is the invertebrate (burrowing bee and wasp) habitat on small areas of sloping bare ground. There are also legal obligations with regard to Japanese knotweed, nesting wild birds (active nests) and badger (active setts);
 - Since there are no habitats present that are considered to be of greater than negligible value, no significant direct impacts are considered likely; and
 - Sloping bare ground noted as supporting some burrowing bees and wasps is predicted to be lost to the proposals. This is considered to be

²² Bat Surveys for Professional Ecologists, Good Practice Guidelines 3rd Edition, Collins, J. (ed.), 2016

²³ Guidelines for Ecological Impact Assessment, Chartered Institute of Ecology and Environmental Management, 2018

a major significant direct impact in a site context and predicted with a very high level of confidence.

6.3.11. When considering potential indirect impacts on statutory and non-statutory sites of nature conservation value in the locality:

- Given the nature of the proposals (especially working above the water table and largely within a steep-sided void) and the distance to the nearest non-statutory site (650m), no significant adverse impact is predicted with a very high level of confidence; and
- According to MAGIC Map,²⁴ the proposals appear to trigger the Impact Risk Zone consideration for Feckenham Forest SSSI. However, as with non-statutory sites, given the nature of the proposals and the distance to this nearest biological SSSI (2.4km), no significant indirect impacts on this or more distant biological SSSIs is predicted with a very high level of confidence.

6.3.12. With regards to legal obligations:

- **Japanese knotweed:** This species is listed under Schedule 9 to the Wildlife and Countryside Act 1981. As such it is an offence to plant or otherwise cause this species to grow in the wild. Under the Environmental Protection Act 1990, it is also classified as controlled waste;
- **Nesting wild birds (active nests):** Active nests of all wild bird species are protected by law. In exceptional cases the law allows certain exemptions to permit legal activities; and
- **Badger (active setts):** Badgers and their setts are protected by law. Licences are granted by Natural England for unavoidable disturbance to badgers in their sett or damaging their sett.

6.3.13. The table below outlines the mitigation measures for any significant impacts together with compensation and enhancement measures. These have been incorporated into the Restoration Scheme.

6.3.14. The proposed concept restoration to agriculture also includes a significant nature conservation element. It seeks to ensure a positive net biodiversity gain, based largely on the creation of habitats of nature conservation value, as described below. These measures are designed to be fully in keeping with the technical research paper Worcestershire County Council has produced which sets out priorities for mineral site restoration strategies at landscape scales in documents provided by WCC.

6.3.15. The mitigation and compensation proposed under habitats are also considered highly likely to result in a net positive impact on a number of species groups.

Table 6.2: Summary of Biodiversity Mitigation and Compensation Measures

HABITAT/SPECIES	APPLICATION TO THE PROPOSED DEVELOPMENT
Habitats	
Ponds (and associated wetland areas)	On restoration, a shallow pond will be created (with an approx. surface area of 0.1ha) along with associated wetland margins suitable for wading and water birds. Pond design will incorporate sinuous edges and a variety of shallow marginal slopes of between 1:3 to 1:10. The area will be left to vegetate naturally as per guidance.

²⁴ Magic Map, <http://www.magic.gov.uk/home.htm>, sourced March 2019

HABITAT/SPECIES	APPLICATION TO THE PROPOSED DEVELOPMENT
Hedgerows and woodland blocks	The concept restoration includes 1km of new hedgerow creation (including hedgerow trees) and some 0.2ha of native woodland planting. The shrubs and trees used will comprise site-native species of local provenance wherever possible. As well as providing a habitat of value, this also significantly increases the connectivity across the area.
Species	
Invertebrates (burrowing bees and wasps)	<p>During the site preparation and operational phases, two large screening bunds (approx. 0.3ha and 0.15ha in extent respectively) will be created and sparsely seeded with a 100% native species acid grassland mix. This will provide both burrowing habitat and a nectar source. In addition, the upper sand faces on the southern side of the proposed quarry will similarly be seeded with such a mix and bare sand faces created as part of the extraction proposals will be available for use by such invertebrates throughout the working life of the quarry and inert landfill.</p> <p>On the restoration, some 150m of bare south-west and west facing embankment will be created using low fertility sandy substrates. This will be allowed to vegetate naturally.</p> <p>In both cases, the available burrowing habitat for such bees and wasps is significantly greater than the extent of areas currently seen to be used by these species.</p>
Wild birds	Removal of vegetation/features which might act as nesting sites for birds will be undertaken outside the bird breeding season to avoid any offence under existing legislation. Where this is not possible, the vegetation/features to be removed should be checked for active nests by a suitably experienced individual immediately (no more than a few days) prior to removal. Replacement nesting habitat for most species will be provided by the proposed restoration but in the short term nest boxes will be provided.
Badger	The basic principle is that setts will be avoided with a stand-off of at least 20m, or where this is not feasible, alternative sett locations will either be created as banks and/or as bespoke artificial setts. Existing setts will then be subject to exclusion under licence. However, since the badger situation (such as the sett location) is subject to change, it is proposed to carry out a detailed badger survey 12 months prior to starting each soil stripping phase of the Proposed Development and draw up a detailed mitigation plan which will ensure legal compliance under licence.
Invasive species	Japanese knotweed will be controlled in line with current guidance.

6.3.16. The following steps will be taken as enhancement measures:

- Pre-commencement, the potential for the retained areas to support bird nesting sites should be enhanced by the erection of six appropriate nest boxes on/in retained features. In particular, 'woodstone' or equivalent open-fronted boxes are recommended; and
- On restoration, the potential for the site to support amphibians and reptiles should be enhanced by the creation of two hibernacula/refuges within 10m of the proposed pond.

6.3.17. The table below summarises the predicted impacts, the proposed mitigation and residual impacts. It addresses features of greater than negligible significance or where a residual impact of greater than negligible significance is predicted. Following successful restoration, a modest positive impact on the biodiversity value of the locality is anticipated.

Table 6.3: Residual Impacts (Biodiversity)

FEATURE	IMPACT IN THE ABSENCE OF MITIGATION (INCLUDING SIGNIFICANCE AND CONFIDENCE LEVEL)	MITIGATION, COMPENSATION AND ENHANCEMENT	RESIDUAL IMPACT, SIGNIFICANCE AND CONFIDENCE LEVEL
Invertebrate (burrowing bee and wasp) habitat on small areas of sloping bare ground.	A major significant direct impact in a site context predicted with a very high level of confidence	Creation of at least 0.45ha of suitable replacement habitat during operations and 150m on restoration	Very likely significant positive impact in a site context
Pond (and associated wetland)	N/A – a habitat to be created. This habitat is a habitat of principal importance for nature conservation	Creation of 0.1ha	Definite significant positive impact in a site context
Hedgerow	N/A – a habitat to be created. This habitat is a habitat of principal importance for nature conservation	Creation of 1km using site-native species.	Definite significant positive impact in a site context
Broadleaved woodland	N/A - a habitat to be created. This habitat is a habitat of principal importance for nature conservation	Creation of 0.2ha using site-native species	Definite significant positive impact in a site context
Japanese knotweed	N/A (although some natural spread is likely)	Control in line with current guidance	Very likely significant positive impact in a site context
Nest boxes	N/A To be placed	Six to be placed	Definite significant positive impact in a site context
Hibernacula	N/A To be placed	Two to be created	Definite significant positive impact in a site context

6.4. CONTAMINATED LAND AND GROUND STABILITY

6.4.1. The following reports have been undertaken in relation to contaminated land and ground stability.

Environmental Setting and Site Design (June 2019)

6.4.2. An Environmental Setting and Site Design report has been carried out by Enviroarm Ltd.²⁵ The report was issued in September 2019 and refers to an earlier Quarry Development Scheme than is presented in the Planning Statement. The report is included in Appendix TR4 and a summary of findings are provided below. It takes account of matters raised in the Scoping Opinion (September 2018).

6.4.3. The report covers all aspects of Phasing from initial sand extraction, to the proposed landfilling through to final restoration and requirements for post closure monitoring. It takes into account that the Site is to be infilled with inert

²⁵ Environmental Setting and Site Design, Pinches 4 Quarry, Ref: ESSD/P4Q/1.00/2019, Enviroarm Ltd., June 2019

waste. Appendices provide supporting information including borehole data in Appendix ESSD4.

6.4.4. The report has been undertaken in accordance with current regulations and related guidance. The conceptual site model has been developed and has identified potential contaminant migration pathways. It has been developed using site specific data and local data obtained from the British Geological Survey, The Meteorological Office, The Environment Agency, The Coal Authority, DEFRA, including the MAGIC website, Natural England, English Heritage and data obtained from on-site testing, including; soils, groundwater, air and noise. A risk analysis for impacts on identified receptors has been developed at the Site based on the factual findings. (page 8)

6.4.5. Site investigation and analysis findings notes:

- **On-site observations:** Physical observations of the quarry and the adjoining base and sides of the Pinches 3 landfill site have been observed during walk over surveys;
- **Site survey:** Detailed groundwater level monitoring has taken place since 2009 at the Pinches 2 and Pinches 3 and two boreholes on the edge of the Site to establish the groundwater levels and full detailed surveys have been carried out of the Site to provide detailed topographic information;
- **In-situ testing results:** The permeability testing by soakaway tests and historic packer tests in nearby identical geology have been used for on-site bedrock permeability and has also been tested for ionic exchange capacity; and
- **Monitoring data:** This includes groundwater level monitoring, nearby groundwater quality testing, permeability testing of the Site, noise monitoring and landfill gas monitoring.

6.4.6. Compliance limits are to be set and landfill gas data and upper limits set out for the Environmental Permit Application.

6.4.7. The Site will be operated as an inert landfill site, with the inert wastes deposited into separate engineered cells and will operate next to sand and gravel extraction in a phased manner. It will have an engineered Geological Barrier constructed under an approved Construction Quality Assurance (CQA) regime. The Site will be operated under a Permit issued under the Environmental Permitting Regulations 2016 for the disposal of inert waste.

Hydrogeological Risk Assessment (September 2019)

6.4.8. A Hydrogeological Risk Assessment (HRA) has been undertaken by Enviroarm Ltd.²⁶ The report was issued in September 2019 and refers to an earlier Quarry Development Scheme than is presented in the Planning Statement. The report is included in Appendix TR5 and a summary of findings are provided below. It takes account of matters raised in the Scoping Opinion (September 2018).

6.4.9. The assessment addresses the geological and hydrogeological setting of the Site. Appendices provide background information.

6.4.10. It considers the operational impacts of restoration by inert landfill in line with the Environmental Permit (England and Wales) Regulations 2016. It demonstrates compliance the aforementioned regulations and the protection of groundwater

²⁶ Hydrogeological Risk Assessment, Pinches 4 Quarry, Ref: HRA/BJT/P4Q/1.00/2019, Enviroarm Ltd., September 2019

through the Groundwater Framework Directive. It includes an assessment of Hazardous Substances and Non-Hazardous Polluting Substances released into the groundwater. It is based on the source of potential contamination being inert wastes and that the surface area of these phases is 8.3ha with the total volume of waste to be tipped is 2,227,500m³.

- 6.4.11. The Site is permitted to accept up to 150,000 tonnes of inert waste per annum and will take approximately 10 years to infill, consuming approximately 100,000m³ per annum.
- 6.4.12. The Proposed Development complies with the requirements of the Environmental Permitting (England and Wales) Regulations 2016:
- The geological barrier complies with the requirements constructed under CQA will achieve an overall minimum permeability of 1×10^{-7} m/s;
 - The compliance of the installation with the specified engineering standards;
 - Hazardous Substance release is below Minimum Reporting Value (MRV);
 - Non-Hazardous Pollutants releases are in accordance with the Drinking Water Standards;
 - Monitoring strategies are in place and recommended in line with the Environmental Permitting Regulations 2016 for inert landfill sites.
- 6.4.13. It fulfils the requirements of the Groundwater Framework Directive as modelling, groundwater monitoring and leachability testing following detailed Site investigation has shown compliance that:
- Hazardous Substance release is below MRV;
 - The Site design limits the introduction of Non-Hazardous Pollutants into groundwater so as to avoid pollution down hydraulic gradient of the Site;
 - Essential and technical precautions have been considered including an engineered basal and side wall seal; and
 - Requisite surveillance for groundwater and leachate is detailed in the report.

Preliminary Sources Study Report (December 2019)

- 6.4.14. A Preliminary Sources Study Report (2019) has been undertaken by TerraConsult.²⁷ The report was issued in December 2019 and refers to an earlier Quarry Development Scheme (October 2019). The report is included in Appendix TR6 and a summary of findings are provided below. It takes account of matters raised in the Scoping Opinion (September 2018).
- 6.4.15. The report addresses the geotechnical risks and investigations relating to the Proposed Development at the Site to excavate the underlying sandstone for use as sand aggregate. The resulting void is to be infilled using inert (construction) waste. The report refers to the Statement of Intent report recently submitted to Highways England.²⁸ (Please note this is not included with the ES).

²⁷ Preliminary Sources Study Report, Pinches Quarry, Lydiate Ash, Report No. 4758-R02 Issue 02, TerraConsult, December 2019

²⁸ Statement of Intent, Pinches Quarry, Lydiate Ash, Report 4758-R01-01, TerraConsult Ltd., November 2019

- 6.4.16. The report forms a combined Preliminary Sources Study Report and Ground Investigation Scope Report in accordance with current guidance, namely Highways England²⁹ and the British Standards Institution (BSI).³⁰
- 6.4.17. There are no previous investigations known on or in the immediate vicinity of the Site. The nearest ground investigation exploratory holes were carried out as part of the investigations for the construction of the M5 motorway adjacent to the eastern edge of the Site.
- 6.4.18. The main sources of information consulted during the preparation of the report concern topography mapping and survey data, Historic mapping and air photograph imagery. In addition, geology mapping, boreholes and geotechnical reports were referred to and a Site reconnaissance survey undertaken in October 2019.
- 6.4.19. The designation of watercourses was checked by reference to the Environment Agency mapping of main rivers. The designation of superficial and bedrock aquifers was obtained from the DEFRA online MAGIC map.³¹ This was also used to check for abstractions and discharges.
- 6.4.20. In the absence of site specific geotechnical investigations, a preliminary assessment of ground conditions and engineering behaviour is made based on the observations made during the site reconnaissance, and other available desk based information. The results of the ground conditions and preliminary engineering assessment are summarised in the table below.

Table 6.4 Summary of Ground Conditions and Preliminary Engineering Assessment

ASPECT	RESULTS
Geological Formations	<ul style="list-style-type: none"> • The geology of the site is shown to be a limited thickness and extent of alluvial fan and soil of the Holt Heath Member overlying sandstone of the Wildmoor Sandstone Member and the Chester Formation. • A north west – south east trending fault traverses the northern part of the site. Given the lithology of the bedrock this is likely to be manifest as a fault zone rather than a single fault of limited width. • Evidence from previous quarrying in the area and from local bedrock exposures suggests that the intact rock is reasonably well cemented.
Soil/Rock Conditions and Engineering Assessment	<ul style="list-style-type: none"> • Where present, the overlying Holt Heath Member is a well graded but heterogeneous mixture of sand and gravel in a matrix of cohesive material. Exposures observed on the site were standing with sub-vertical faces of two to three metres in height, albeit with some evidence of continuing shallow failures of the face. • Standing water was observed in several localised excavations across the site. This is conjectured to be perched water caused by rainfall at the site, and indicates the general fine-grained relatively impermeable nature of the soil matrix. • Significant thicknesses of the Holt Heath Member are not anticipated at the site, but it is anticipated that where present the material is likely to provide a suitable source for constructing the screening bunds around the proposed quarry. Information concerning the grading, plasticity and remoulded strength of the soil should be ascertained at the Ground Investigation stage, together with the optimum water content and maximum dry density in order to define the acceptability limits for placement and compaction. • The upper weathered layers of the Wildmoor Sandstone Member and the Chester Formation where cementing has broken down will behave predominantly as soils. The thickness of the completely weathered zone should be determined at the Ground Investigation stage. • Evidence from historic quarrying operations in the area suggests that below the completely weathered zone the Wildmoor Sandstone and Chester Formation is likely to

²⁹ The Design Manual for Roads and Bridges, CD 622 Managing Geotechnical Risk, Highways England, August 2019

³⁰ BSEN 1997-1: Eurocode 7: Geotechnical Design. Part 1: General Rules, BSI, 2004. Incorporating A1, 2013, British Standards Institution

³¹ MAGIC Map, <https://magic.defra.gov.uk>, sourced December 2019

ASPECT	RESULTS
	<p>provide a suitable high wall face to stand sub-vertically as shown on Drawing PN1079-D11 Sheets 1 to 8. It is likely that this face would be stable for the life of the quarrying operation, and allow controlled filling operations to restore the quarry void.</p> <ul style="list-style-type: none"> • The degree of cementing and weathering of the sandstone bedrock, together with the rock strength and disposition of bedding, should form part of the Ground Investigation. • Localised failure may occur in the fault zone, if this is present within the site. Investigation of this feature should also form part of the Ground Investigation.
Ground Water	<ul style="list-style-type: none"> • Previous quarrying at the site and in the surrounding area has encountered small seepages of groundwater at considerable depth. As the proposed quarry extension is located at the crest of the hill, the infiltration recharge is likely to be limited. • It is anticipated that groundwater flow will be encountered in small volumes, and easily controlled by sump pumping as necessary. • Once restoration is completed, rainwater runoff will be managed by surface water control using swales and porous "field" drains. Groundwater flow will return to current pathways following restoration.

6.4.21. Chapter 5 of the report sets out the ground investigation scope to be undertaken. Intrusive ground investigations at the site would be carried out in accordance with the requirements of BSEN 1997 Part 2, 2007³² and BS5930:2015.³³ Laboratory testing would be carried out in accordance with BS1377:1990³⁴ and the relevant BSEN ISO standards where appropriate.

6.4.22. The geotechnical and geo-environmental risks identified in the risk register are considered to be common to both the M5 and the A491. The risk register from the Statement of Intent report is updated in the table below. The scoring matrix and methodology are in accordance with current guidance (Highways England). In accordance with the provisions of the British Standards Institution (BSEN 1997-1), the geotechnical category of the scheme is assessed at the current stage to be Category 2.

6.4.23. This is defined in the Statement of Intent report as *'Schemes including conventional types of structure and foundation with no exceptional risk or difficult ground or loading conditions, e.g.: spread foundations; raft foundations; piled foundations; walls and other structures retaining or supporting soil or water; excavations; bridge piers and abutments; embankments and earthworks; ground anchors and other tie-back systems; tunnels in hard, non-fractured rock and not subjected to special water tightness or other requirements'*. (page 8)

³² BSEN 1997-2: Eurocode 7: Geotechnical Design. Part 2 Ground Investigation and Testing., British Standards Institution, BSI, 2007 (+corrigendum 2010)

³³ BS5930: Code of Practice for Ground Investigations, British Standards Institution, 2015

³⁴ BS1377: Methods of Test for Soils for Civil Engineering Purposes. Published in nine parts, British Standards Institution

Table 6.5: Geotechnical Risk Register

RISK ID	BEFORE MITIGATION					AFTER MITIGATION			
	HAZARD	CONSEQUENCE	LIKELIHOOD	SEVERITY	RISK	MITIGATION	LIKELIHOOD	SEVERITY	RISK
1	General failure of quarry high wall adjacent to site boundary	Potential for loss of support to carriageway of M5, slip road or A491	3	5	15	Adequate investigation and design, including offset distance to high wall.	1	2	2
2	Localised failure of quarry high wall in fault zone	Potential for loss of support to carriageway of M5, slip road or A491	4	5	20	Adequate investigation and design; monitoring of quarrying works	2	2	4
3	Failure of screening bund	Potential blockage to hard shoulder and/or highway drainage	2	3	6	Adequate soil testing and slope stability design. Correct earthworks specification.	1	2	2
4	Failure of slopes in superficial soils and/or weathered rock	Potential settlement damage to highway surfacing and / or drainage.	2	3	6	Adequate investigation and slope design	1	1	2
5	Excavation or filling adjacent to the site boundary	Damage to highway drainage outfalls or cut-off drainage	1	3	3	Drainage to be identified on site. Monitoring of quarry and backfill operations	1	1	1
6	Underground mining voids	Instability of quarry high wall	1	4	4	None required	1	4	4
7	Natural voids	Instability of quarry high wall	1	4	4	None required	1	4	4
8	Surface water overflowing into carriageway and drains	Surcharge of drainage system; pluvial flooding	2	3	6	Adequate drainage designed to collect runoff within the site	1	2	2
9	Changes to groundwater regime caused by dewatering	Induced settlement of highway infrastructure and bridges.	3	3	9	Adequate investigation and design	2	2	4
10	Stability of quarry restoration backfill	None anticipated – quarry restoration is to existing ground levels around the site.	1	1	1	None required	1	1	1
11	Dust	Loss of visibility for road users	2	5	10	Adequate design of dust suppression measures	1	4	4

6.5. CULTURAL HERITAGE

- 6.5.1. An Historic Environment Desk-based Assessment (October 2019) has been undertaken by Benchmark Archaeology.³⁵ The report makes reference to an earlier Concept Quarry Development Scheme (dated October 2016). The report is included in Appendix TR7 and a summary of findings are provided below. It takes account of matters raised in the Scoping Opinion (September 2018).
- 6.5.2. The assessment includes a description of the baseline conditions, examines a range of sources on the archaeological resource of the area and identifies any known and potential receptor(s) within the Site and its immediate vicinity. It has been undertaken in line with NPPF (2019), the Treasure Act (1996), and the guidelines and recommendations issued by the Chartered Institute for Archaeologists and Historic England.
- 6.5.3. Where evidence is discussed, the potential for associated buried archaeological deposits to survive uses the following scale:
- **None** (No recovery of features expected);
 - **Low** (Features very unlikely to be encountered);
 - **Medium** (Possibility that features may occur/be encountered); and
 - **High** (Remains almost certain to survive).
- 6.5.4. A Site visit consisting of a brief walkover, photographic survey and written notes was carried out in September 2019 and no evidence for the presence of above or below ground archaeology was recorded during the visit.
- 6.5.5. Key planning considerations include:
- **Worcestershire Historic Environment Record (WHER) data:** the Site does not contain any Designated or Undesignated Heritage Assets;
 - **Undesignated Heritage Assets:** located immediately to the west of the Site include WSM54995 Chadwich Mill Farm (Chadwich Farm and Corn Mill); and WSM44095 Chadwick Farm, Wildmoor;
 - **Three Designated Heritage Assets comprising a Grade II* and two Grade II Listed Buildings:** c.700m (site centre) to the north-east of the Site's easternmost boundary: WSM06610 Chadwich Manor, Rubery, WSM29582 Historic Farm Buildings, Chadwich Manor Farm, Rubery and WSM01726 Gate Piers West of Chadwich Manor;
 - **Two Grade II Listed Buildings:** c.165m to the south-east of the Site: WSM01724 Lydiate Ash House, 61 Halesowen Rd, Lydiate Ash, Bromsgrove; and WSM01725 Gate Piers at Lydiate House, 61 Halesowen Road, Lydiate Ash, Bromsgrove; and
 - **Previous formal intrusive archaeological work:** It is understood that no previous formal intrusive archaeological work has been undertaken on the Site. The Site is however included in an ongoing county-wide ridge-and-furrow condition survey: WSM70696: Ongoing work - Condition assessment of ridge and furrow earthworks in Worcestershire 2018.
- 6.5.6. The assessment concludes:

³⁵ Land at Pinches Quarry (Phase 4), Wildmoor Lane, Wildmoor, Bromsgrove, Benchmark Archaeology for Enviroarm Ltd., October 2019

- Based on the available information it is considered here that the potential for the survival of significant archaeological remains on site is 'low - medium'. It is acknowledged, however that the lack of archaeological activity in the immediate vicinity of the Site may reflect a paucity of fieldwork;
- Several Designated and Undesignated Heritage Assets are recorded in the vicinity of the Site. These assets comprise both listed and unlisted buildings. Whilst the study site arguably lies within the setting of these assets the Site as whole does not contribute to their settings significance. At present the Site includes negative visual elements comprising an open pit to the south and a machinery yard with abandoned plant and materials to the north. While the current quarrying proposals may lead to short term changes to the setting of the surrounding assets, the long-term landscaping and restoration proposals will lead a visual improvement by removing the existing negative elements; and
- ... Should archaeological remains be present the Proposed Development has the potential to impact upon them. Should permission be granted, advice regarding the need for further archaeological work will need to be provided by the Archaeological Advisor to Bromsgrove District Council.

6.6. HEALTH IMPACTS

- 6.6.1. A Health Impact Assessment (2019) has been carried out by ECL.³⁶ The report was issued in November 2019 but does not make direct reference to the Quarry Development Scheme or earlier versions. Further details are included in Appendix TR8 and a summary of findings are provided below. It takes account of matters raised in the Scoping Opinion (September 2018) including cumulative effects.
- 6.6.2. Health Impact Assessment (HIA) is a tool to predict the health implications on a population as a result of a proposal. The HIA process is recognised by the national planning guidance through its ability to provide a systematic yet flexible and practical framework that can be used to consider the wider effects of local and national policies or initiatives and how they, in turn, may affect people's health. Due to time constraints, a steering group was not established for the Health Impact Assessment (HIA) and the focus of the investigation is based on the results of the screening and scoping exercises.
- 6.6.3. The Planning for Health in South Worcestershire – Supplementary Planning Document³⁷ has been considered for guidance and to provide a structured framework based on four steps: 1. Screening; 2. Scoping; 3. Assessment; and 4. Review of the proposal and HIA submission.
- 6.6.4. The Executive Summary states the following.
- 6.6.5. A literature review was undertaken to critically assess evidence relating to the identified health impacts from a range of sources. In addition, community profiling was interpreted in the context of the Proposed Development to

³⁶ Health Impact Assessment, Application for Planning Permission for the Proposed Extension for the Proposed Extension to Pinches Quarry (Phase 4) and Subsequent Restoration, ECL, ECL Ref: ECL.058.01.01/HIA Issue: 1, November 2019

³⁷ Planning for Health in South Worcestershire – Supplementary Planning Document, Malvern Hills District Council, Worcester City Council, Wychavon District Council, Prepared in conjunction with Worcestershire County Council, Adopted September 2017

establish any trends in population groups and, therefore, help identify any health and well-being priorities of particular concern.

- 6.6.6. Following the completion of the above, an appraisal was undertaken which identified unintended consequences and positive impacts on health and well-being.
- 6.6.7. In the short term, noise nuisance concerns have been raised via the consultation responses. Vulnerable groups have been identified as previous complainants: residents in close proximity to the Site, young children, older generations and those with pre-existing health conditions. Consequently, it is proposed that a noise attenuation bund will be created and recommendations include noise monitoring to determine actual noise levels at perimeter boundaries, as well as the implementation of operational procedures to mitigate noise.
- 6.6.8. The potential negative impacts and suggested mitigation measures are presented in a table format below.

Table 6.6: Summary of Negative Impacts and Mitigation Measures (Health Impacts)

POTENTIAL NEGATIVE IMPACTS	MITIGATION MEASURES
Access to the physical environment may be reduced due to the local community perceiving a risk from the quarrying operation and becoming discouraged from walking or cycling in close proximity to the works. There is also the potential for serious road accidents to occur due to the Heavy Good Vehicles ("HGVs") carrying significant tonnages of quarried material on the local road network.	Proposed mitigation includes the implementation of safe operational procedures (use of banksman, vehicle weight restrictions) prior to commencement of activities and communication of these measures to assure the local population that the areas can still be safely used for recreational purposes.
Operations to release fugitive emissions to air during both from the mineral extraction activities and associated traffic movements which was identified during the literature review. Exposure in the short term can cause asthma and nose, throat or eye irritations, in particular for those with pre-existing respiratory conditions, children and the elderly.	Reference is made to the findings of the Air Quality Assessment which is being submitted as part of the planning application. The report found that overall, dust impacts associated with site activities and HGV movements are deemed 'not significant'. The HIA recommends that in order to ascertain actual dust concentrations and whether they are likely to affect human health, at each Phase of the Proposed Development, dust monitoring at strategic locations should be undertaken if deemed necessary.
Noise, dust and water quality issues causing stress and anxiety, especially for previous complainants. A feeling of a lack of control over events may also occur.	Applicant to communicate with relevant stakeholders to maintain a transparent relationship.
Additional health impacts related to the safety of workers and the public.	Applicant updating their safe operational procedures and infrastructure to be extended.

6.6.9. Positive health impacts identified during the appraisal include:

- The potential for active transport which will improve physical and mental well-being for those that participate;
- Economic development associated with the Proposed Development as a result of trade and revenue generation, job opportunities and training prospects has the potential to improve mental well-being in the local community; and
- In the long term, from the restoration as greater access to a higher quality of green space will be achieved which will improve both physical and mental well-being of the local population.

- 6.6.10. The HIA findings should be communicated to all stakeholders and mitigation measures and recommendations, as well as on going measurements, should be continually monitored to ensure completion. (pages 1 and 2)
- 6.6.11. The HIA report undertakes an assessment of cumulative impacts in line with NPPF (2019) and considers light, noise and visual impacts.
- The phased nature of the operations means that only a small area of the whole quarry site will be active at any one time. Light and noise trespass are deemed to be of a low risk; with mitigation measures in place to help attenuate the potential for disturbances beyond the site perimeter. Visual impacts are considered minimal due to the progressive restoration scheme; which could also help mitigate the potential for emotional health and wellbeing to be negatively impacted. Subsequently, it is considered that any cumulative impacts as a result of the quarrying operations will therefore be minimised;
 - The Proposed Development is in close proximity to other mineral extraction and waste management sites. It is therefore important to assess the potential for cumulative impacts to be experienced when looking at the Proposed Development, Pinches Quarry as a whole, in conjunction with other industrial activity in the surrounding area;
 - Many of these surrounding mineral and waste management developments have either been restored; are due to undergo restoration; do not currently have planning permission for extraction; or are currently inactive;
 - Furthermore, in regards to air quality, adverse dust impacts from sand quarries are considered highly unlikely at distances over a few hundred metres ...; and
 - In light of all this information, and taking the distances between Pinches Quarry and similar industries into account, it is considered that cumulative effects from other nearby sources are likely to have a negligible effect on the sensitive receptors; particularly in regards to dust, light, noise and visual impacts.

6.7. LANDSCAPE AND VISUAL

- 6.7.1. A Landscape and Visual Impact Assessment (LVIA) (2019) has been undertaken by Bright & Associates.³⁸ The final report was issued in December 2019 and refers to the Quarry Development Scheme set out in the Planning Statement. Further details are included in Appendix TR9 and a summary of findings are provided below.
- 6.7.2. The LVIA has been undertaken in adherence with industry guidelines and best practice including the Guidelines for Landscape and Visual Impact Assessment (Third Edition) (2013)³⁹ and Visual Representation of Development Proposals, Technical Guidance Note 06/19 (2019) which has recently been issued by the Landscape Institute.⁴⁰ Consideration is given to matters raised in the Scoping Opinion (September 2018) including cumulative effects.
- 6.7.3. With regards to landscape character effects:

³⁸ Landscape and Visual Impact Assessment, Pinches 4 Quarry, Bright & Associates, December 2019

³⁹ Guidelines for Landscape and Visual Impact Assessment (Third Edition), Landscape Institute and Institute of Environmental Management and Assessment, 2013

⁴⁰ Visual Representation of Development Proposals, Technical Guidance Note 06/19, Landscape Institute, September 2019

- At a national level, the Site is located in the Arden National Character Area No.97 which represents large-scale mapping (Natural England). According to the Worcestershire Landscape Character Assessment (2012), the Site is situated in the Principal Settled Farmlands Landscape Type and the Catshill Principal Settled Farmlands Landscape Description Unit MW127 and Land Cover Parcel MW127g at a more detailed level;
 - The Proposed Development will involve the removal of an area of rough grazing and abandoned scrub and the introduction of aspects and activities associated with mineral extraction and subsequent infilling as part of progressive restoration;
 - Having completed field work as part of the LVIA, B&A applied a **Medium** landscape sensitivity to the Principal Settled Farmlands Landscape Type and a slightly lower **Low-Medium** landscape sensitivity to the Site. At a Site level, with respect to direct effects, during extractive operations (Phases) and infilling works (Stages) overall, there will be a **Large** magnitude of impact and a **Moderate to Major (adverse)** significance of effect as a worst case scenario;
 - At a county level, landscape character sources and strategic level reports highlight common issues including the fragmentation of field boundaries and a lack of hedgerow trees. Whilst woodland cover is not a characteristic feature. Mineral extraction has a 'moderate impact' at a Landscape Description Unit and Land Cover Parcel level. However, in the immediate vicinity of the Site, Pinches 3 Quarry is currently being restored (due for completion in early 2020) and mineral and landfill sites at a long range located north of the A491 (Sandy Lane) to the west of the Site are mainly either restored or inactive;
 - Progressive restoration through the Restoration Scheme will return the Site mainly to an agricultural use with small-scale woodland planting and a pond with associated wetland areas. This will provide opportunities for landscape gain suitable to the Landscape Type and will encompass key characteristics such as hedgerow boundaries (Primary) the proposed restoration contours will be comparable to the natural landform and will be appropriate in terms of the immediate vicinity and wider context (Secondary) and an irregular enclosure pattern of small to medium-sized fields and intermittent hedgerow trees (Tertiary). It would also support the guidance provided by strategic level reports. The Restoration Scheme will result in a **Medium** magnitude of impact and a **Moderate (beneficial)** significance of effect; and
 - There will be some limited close range indirect effects, resulting in a **Small** magnitude of impact and **Minor-Moderate (neutral)** significance of effect but more generally they will be **Negligible**. The latter also applies to adjacent Landscape Types in the study area.
- 6.7.4. The Site is located within an area of Green Belt (a non-statutory designation). As part of the Proposed Development, mineral processing will take place via mobile plant within the Site and the stockyard area will be located in the north-western part of the Site in an area of existing hardstanding. Following the cessation of mineral operations and infilling, the stockyard area will be restored through the removal of associated infrastructure and ground profiles re-instated and will be set aside for future development purposes.
- 6.7.5. Mitigation measures include progressive restoration of the Site commencing with the Phase 1 area in Stage 5 which will restore the elevated area of land in the south-western environs of the Site first. In addition, the Restoration Scheme

offers opportunities for promoting the positive use of the Green Belt through enhancing the existing biodiversity, landscape character and visual amenity. In conclusion, the Proposed Development will preserve the openness of the Green Belt and it will not conflict with the five purposes of the Green Belt set out in the NPPF (2019).

- 6.7.6. Listed Buildings are found to the south-east of the Site within close range and include the Grade II Gate Piers East of No 61 (c.180m) and Lydiate Ash House (c.195m). Neither of the Listed Buildings or their associated settings will be affected by the Proposed Development due to intervening elements (e.g. built form, the M5 motorway corridor, agricultural fields and vegetation).
- 6.7.7. Nine Viewpoint Locations have been assessed as part of the LVIA and replicate those used for the 2018 Landscape and Visual Appraisal (LVA). The photographs presented in the LVIA were taken in October 2019. The Principal Zone of Visual Influence has been informed by field work observation and Site assessment work rather than through computer based analysis. Given the hill formation of the Site, the visual context extends over areas in an arc broadly to the north, east and west. Whilst opportunities of viewing the Site from the south-east to south-west are significantly less. The Viewpoint Locations are listed in the table below.

Table 6.7: LVIA Viewpoint Locations

VP NO.	DESCRIPTION/LOCATION	RECEPTOR (SENSITIVITY)
Close Range Views		
1	From the A491 (Sandy Lane), immediately west of the M5 junction 4 roundabout	Road users (Low)
2	From the Monarch's Way (long distance footpath) north of the Site	Footpath users (Medium) and residents (ground floor locations/gardens) (High)
Mid-Range Views		
3	From footpath no. 627 (C) near Birmingham Road	Residents (ground floor locations/gardens) (High), footpath users (Medium) and road users (Low)
4	From the road north of Brookhouse Farm	Road users (Low)
Long Range Views		
5	From Third Road in Wildmoor	Road users (Low) and Residents (upper floor windows) (Medium)
6	From the Monarch's Way (long distance footpath) in the Waseley Hills Country Park	Footpath users and visitors to the Waseley Hills Country Park (Medium)
7	From footpath no. 595 (C) near Harbours Hill	Footpath users (Medium)
8	From footpath no. 607 (D) west of Wildmoor	Footpath users (Medium)
9	From the Monarch's Way (long distance footpath) on the edge of Fairfield	Footpath users (Medium)

- 6.7.8. The assessment of visual effects considered extractive operations (e.g. soil stripping and mineral extraction) per Phase and the subsequent infilling Stage as part of progressive restoration:
- Phase 2A is located on the eastern edge of the Site and will continue working to a lower level. Potential views of extractive operations or infilling will either be hidden by the screen bund along the eastern/north-eastern Site boundary or not visible due to intervening vegetation, built form or topography. Therefore, with **No Impact** for all Viewpoint Locations;

- Extractive operations at a higher level in Phase 1 (Southern Sector) and Phase 3 (Northern Sector) and upper levels of infilling as part of progressive restoration during Stage 7 and 8 respectively are the most likely to be in view, albeit for a short duration;
- At a close range, a **Large** magnitude of impact was recorded at Viewpoint Location 1 from the A491 (Sandy Lane), due to the formation of the screen bund in Phase 1. There will be a **Moderate (adverse)** during bund formation which will reduce to **Moderate (neutral)** following establishment (grass seeded). A lower **Medium** magnitude of impact applies to extractive operations/infilling with a **Minor-Moderate (adverse)** significance of effect in the same Phase;
- At Viewpoint Location 2, a **Medium** magnitude of impact was noted regarding the upper elevations of Phase 3 extractive operations and Stage 8 infilling as part of progressive restoration. This applies to footpath users from a section of the Monarch's Way (long distance footpath) north of the A491 (Sandy Lane), resulting in a **Moderate (adverse)** significance of effect. For residents nearby at Chadwick House (ground floor locations/gardens), a lower level was noted (**Small**) and a **Moderate (adverse)** significance of effect;
- At a mid-range, when considering Phase 3 (extractive operations at a higher level) and Stage 8 (upper levels of infilling), a **Medium** magnitude of impact was recorded at Viewpoint Location 4 on Malthouse Lane, with a **Minor-Moderate (adverse)** significance of effect for road users; and
- A **Minor-Moderate (adverse)** significance of effect or lower applied elsewhere for other Viewpoint Locations in relation to Phases 1 and 3 together with subsequent infilling Stages. There was an increase in occurrence of neutral rather than adverse nature of effects at mid-range and long range when compared to close-range.

6.7.9. With regards to the post restoration of the Site:

- Magnitude of impact ranged from **Negligible** to **Small**. A potential **beneficial** nature of effect was noted for the majority of Viewpoint Locations;
- At Viewpoint Location 6 from the Monarch's Way (long distance footpath) in the Waseley Hills Country Park and Viewpoint Location 7 from a footpath near Harbours Hill, a **Minor-Moderate (beneficial)** significance of effect resulted; and
- A Minor (beneficial) significance of effect was noted for Viewpoint Location 1 from the A491 (Sandy Lane), Viewpoint Location 8, a footpath west of Wildmoor and potentially at Viewpoint Location 3 near the A38 (Birmingham Road) for residents and footpath users. The remainder of Viewpoint Locations being **Minor (neutral)** or **Negligible**.

6.7.10. Existing and proposed quarrying and landfill operations are situated off Sandy Lane (A491) and Money Lane (B4551). This primarily concerns two clusters of either restored or inactive quarries to the north-west and west which are within long range from the Site. Consequently, they are separated by a combination of the rolling topography and vegetation from the Site. With reference to the representative views used for this LVIA, the potential cumulative sites do not occupy the same amenity in combination. There will be no **adverse** landscape or visual cumulative effects resulting from the Proposed Development.

6.7.11. The LVIA concluded that the restored landform and landuse, namely agricultural fields bordered by hedgerows and hedgerow trees will complement the existing immediate setting of the Site and the wider context. Such features

will be appropriate when considering the recommended guidelines set out in Landscape Character Assessments and strategic reports reviewed in the LVIA. In this regard, it can be concluded that there is sufficient 'capacity' to enable the Proposed Development without significant or overriding **adverse** effects to both the character and value of the adjoining landscape. No mitigation measures further to those outlined and taken into account in the Assessment are recommended.

6.8. NOISE

- 6.8.1. A Noise Assessment (2019) has been undertaken by LF Acoustics Ltd.⁴¹ Further details are included in Appendix TR10 and a summary of findings are provided below. The report refers to an earlier Phasing sequence than presented in the Planning Statement.
- 6.8.2. The report undertakes an assessment of the noise levels associated with proposed minerals extraction and restoration of the Site. Applicable guidance referred to includes National Planning Policy Framework (NPPF) (2019) and Planning Policy Guidance. It takes account of matters raised in the Scoping Opinion (September 2018) including cumulative effects.
- 6.8.3. Operations within Pinches 3 are nearing completion and that operations within the Site due to the Proposed Development would remain equivalent to those undertaken within Pinches 3, with similar plant and procedures adopted to progressively extract the mineral and undertake inert infilling to restore the Site.
- 6.8.4. The baseline noise assessment refers to the close proximity of the M5 motorway and traffic in terms of ambient and background noise levels.
- 6.8.5. Residential properties assessed include: Sidhdu Kinnersley, Chadwich Mill Farm, properties within Wildmoor (mainly located along Top Road) and in Lydiate Ash (located between the M5 motorway and the A38). They are identified on Figure 2: Noise Sensitive Receptors and Noise Monitoring Positions in the report.
- 6.8.6. A noise monitoring exercise was carried out during the morning of Monday 11 March 2019.
- 6.8.7. At present, there is little or no plant operating within the Pinches 3 Quarry and source term noise levels have therefore been obtained from plant operating within similar quarries which are representative of the proposed operations. The source terms assumed for the assessment include: CAT D6T Dozer (fully operational), Loading Shovel (Used to work stockpiles and load HGV), Processing Plant (Mobile screening plant), HGV Movement (Vehicle passby noise level) and Dump truck passby (Vehicle passby noise level).
- 6.8.8. Noise levels associated with the proposed quarry and landfill operations have been calculated utilising the methodology contained within British Standards (BS) 5228.⁴² Where barrier calculations have been made, the methodology from the Department of Transport's Calculation of Road Traffic Noise (CRTN) has been used⁴³ which factors in the screening effects from the quarry sides.

⁴¹ Noise Assessment, Pinches 4 Quarry, LF Acoustics Ltd., March 2019

⁴² Code of Practice for Noise and Vibration Control on Construction and Open Sites. Part 1: Noise. BS 5228-1+A1, British Standards Institute, 2014

⁴³ Calculation of Road Traffic Noise (CRTN), Department of Transport, 1988

6.8.9. The calculations have been made for each individual Phase taking into account the plant operating near to the surface which represents the likely worst case conditions and also whilst plant operates at a lower level within the Site and is effectively screened.

6.8.10. The Assessment of Noise Levels is summarised in the table below.

Table 6.8: Summary of Noise Assessment Results

PROPERTY	NOISE ASSESSMENT RESULTS
Sidhu Kinnersley	<ul style="list-style-type: none"> • Noise levels at this property would be at a maximum during the initial works to form the perimeter bunding around the proposed stockpiling area on the land to the north east of the property. Noise levels during these temporary works are anticipated to be up to 64 dB LAeq, 1 hour, during the short period whilst the plant is operating along the boundary with the property. These works are anticipated to take a few days to complete and would provide longer term benefits, thus the temporary working limit of 70 dB LAeq, 1 hour would apply. Once the bund is constructed, operations within the stockpiling / loading area would be fully screened from the property. • Noise levels during the initial extraction within Phase 1 are anticipated to be 48 dB LAeq, 1 hour whilst the plant is working close to the surface and would reduce as the depth of the working increases, thus providing additional screening. Noise levels during extraction and processing within Phases 1 and 2 would remain below the normal working limit of 55 dB LAeq, 1 hour at this and the neighbouring property. • Noise levels would increase marginally during the initial works within Phase 3, as infilling and restoration of Phase 1 commenced, due to the requirement for additional plant to work within the two areas of the quarry. Noise levels during this stage are anticipated to increase to 51 dB LAeq, 1 hour, remaining 4 dB(A) below the normal working limit. • During the final stages of extraction within Phase 3 and the infilling operations within Phases 2 and 3, noise levels are not anticipated to exceed 50 dB LAeq, 1 hour, thus remaining acceptable. • Noise levels associated with the proposed extraction and landfill operations within Pinches (4) would therefore remain within acceptable limits at this property, thus minimising any potential adverse impacts and effects.
Chadwich House	<ul style="list-style-type: none"> • This property is located to the north of the quarry, with the closest operations proposed located within the stockpiling and loading area at the northern end of the quarry. • Operations within Phases 1 and 2 would be over 300 metres from the property, with noise levels associated with plant operating anticipated to be of the order of 44 – 46 dB LAeq, 1 hour, remaining substantially below the normal working limit of 55 dB LAeq, 1 hour at this location. • Noise levels would increase at the commencement of operations within Phase 3, with noise levels during the initial soil strip and preparation working in this phase anticipated to be 50 dB LAeq, 1 hour. • Noise levels would reduce marginally once extraction commences within Phase 3, with noise levels of 47 dB LAeq, 1 hour calculated during extraction operations within Phase 3 and restoration of Phase 1. • Noise levels are anticipated to remain at this level during the final stages of extraction and restoration of Phases 2 and 3. • Noise levels associated with the operation of the quarry and proposed inert landfill are therefore not anticipated to exceed the normal working limit of 55 dB LAeq, 1 hour at this location and therefore seek to minimise any potential adverse impacts and effects.
Top Road	<ul style="list-style-type: none"> • The properties within Wildmoor potentially most likely to be affected by noise from the working of Pinches (4) are located along Top Road. These properties would be over 300 metres from the operational boundaries and generally screened by the landform. • Noise levels would be at a maximum at these properties during the initial temporary working at the commencement of operations to form the perimeter bund around the stockpiling / loading area, with noise levels of 46 dB LAeq, 1 hour calculated, thus remaining 9 dB(A) below the normal working limit of 55 dB LAeq, 1 hour. • The calculation of the noise levels during the normal working within Pinches (4) indicate the highest noise levels would be likely to occur at the commencement of operations within Phase 3, which is the closest phase to the village. Noise levels during the initial works in this phase and including restoration operations within Phase 1 are anticipated to be of the order of 44 dB LAeq, 1 hour, thus remaining at least 10 dB(A) below the proposed normal working limit within the property. • Noise levels attributable to the plant operating within the quarry would remain very low within the village and are anticipated to remain substantially below the proposed working limit. On this basis any potential for adverse noise impacts or effects would be very low.

PROPERTY	NOISE ASSESSMENT RESULTS
Dwellings in Lydiate Ash	<ul style="list-style-type: none"> • The dwellings in Lydiate Ash are located to the east of the M5 motorway, with noise levels at these properties principally influenced by road traffic noise. • Noise levels associated with site operations would be at a maximum during the working within Phase 1, which is closest to the properties, although at a greater distance to the present working within Pinches 3. • Noise levels during the initial soil stripping within Phase 1 would be 51 dB LAeq, 1 hour, reducing to 49 dB LAeq, 1 hour during the initial stages of extraction and processing. Noise levels would therefore remain substantially below the normal working limit of 55 dB LAeq, 1 hour at these properties. • As operations progress into Phases 2 and 3, noise levels attributable to the operation of the Site plant would gradually reduce, with noise levels of between 44 – 49 dB LAeq, 1 hour calculated and therefore remaining at least 6 dB(A) below the proposed normal working limit at these properties. • Noise levels attributable to the plant operating within the quarry would therefore remain low at these properties and would remain substantially below the proposed working limit. On this basis any potential for adverse noise impacts or effects would be very low.

6.8.11. The recommendations for the control and management of noise notes that whilst the assessment indicates that the operation of the Site would not result in any adverse impacts, appropriate management controls would be adopted to ensure noise levels associated with site operations were minimised. In general the following control measures would be adopted:

- Only modern and well maintained plant would be used;
- All plant would be fitted with the appropriate silencers provided by the manufacturer;
- Where plant was found to be defective (e.g. through a broken silencer), the plant would be taken out of service until it was repaired;
- Materials would be handled carefully, ensuring drop heights were minimised; and
- The speed limit would be maintained on site.

6.8.12. In general, given the levels of noise predicted, it is not anticipated that any regular noise monitoring would be required to be undertaken on site, providing the plant is well maintained.

6.8.13. The report concludes:

- The operations within the Site due to the Proposed Development would remain equivalent to those undertaken within Pinches 3, with similar plant and procedures adopted to progressively extract the mineral and undertake inert infilling to restore the quarry;
- Baseline noise measurements were made to establish typical background noise levels at potentially affected properties which surround the Site and to determine appropriate noise limits;
- Calculations of the noise levels associated with the continued operation of the quarry and proposed landfill and restoration has been made and assessed against the noise limits derived from the appropriate planning guidance; and
- The assessment indicated noise levels associated with the continued extraction and processing and landfill operations would remain acceptable and below a level which would result in any significant adverse impacts at surrounding properties. (Section 8)

6.9. SOILS

- 6.9.1. An Agricultural Land Classification Report (desk based study) (2018) has been carried out by Richard Stock Soils and Agriculture consultant.⁴⁴ The report makes reference to an earlier Concept Quarry Development Scheme (dated October 2016). Further details are included in Appendix TR11 and a summary of findings are provided below.
- 6.9.2. Drawing ALC Plan 1: Agricultural Land Classification Areas identifies Area 1 to Area 4 and is included in the report. The ALC grade and applicable Area is summarised as follows: Area 1: Grade 3b (0.6ha), Area 2: Grade 3a/b (0.5ha), Area 3: Grade 3b (1.2ha) and Area 4: non ag (1.9ha) (Table 2 – ALC Grades based on desk-based study).
- 6.9.3. As noted, mention is made to a prior Concept Quarry Restoration Scheme and restoration to an agricultural afteruse. It notes that *'Careful selection and treatment of the soils and a restored topography with surface gradients of <1 in 8 could make it feasible to restore the whole site to grade 3a'*. (paragraph 5.10)
- 6.9.4. The principal areas of the Site are not Grade 3a and that the small area that might fit the grading criteria is highly unlikely to be farmed or managed to this grade given the wider lower quality land and isolation of the field unit.
- 6.9.5. The Site is likely to comprise land classified as Grades 3b and non agricultural.

6.10. TRANSPORT

- 6.10.1. A Transport Statement (September 2018) has been undertaken by SCP.⁴⁵ The report makes reference to an earlier Concept Quarry Development Scheme (dated October 2016). Further details are included in Appendix TR12 and a summary of findings are provided below.
- 6.10.2. The Transport Statement (TS) has been produced to demonstrate that the development is satisfactory from a highway safety, traffic and access perspective. The preparation of the TS is consistent with national transport policy guidance set out in NPPF (2012) (which was current at the time).
- 6.10.3. The accompanying Sustainable Transport Assessment outlines walking, cycling and public transport provision and an estimate of anticipated traffic impacts. In terms of the latter, based on the overly-robust theoretical maximum output, the Site is anticipated to generate an average of approximately 110 two-way HGV movements (c.55 vehicles per day to and from the Site), taking approximately 15 tonnes per load of materials to local manufacturers. Eight-wheel tipper trucks are the main vehicles travelling to and from the Site.
- 6.10.4. It is expected that vehicle movements will be relatively constant but is expected to vary from day to day and dependent on the season, with more movements expected during the summer months.
- 6.10.5. The assessment takes into account vehicle levels associated with Pinches 3 Quarry using Site infrastructure.
- 6.10.6. The Summary and Conclusions note the following.

⁴⁴ Agricultural Land Classification Report On Land At Pinches 4 (desk based study), Richard Stock Soils and Agriculture, January 2018

⁴⁵ Transport Statement, Pinches 4 Quarry, Wildmoor Lane, Wildmoor, Bromsgrove, SCP, DOC REF: SC/18318/TS/0, September 2018

- The internal layout of the Site has been designed to allow for all vehicles to enter and leave the Site in a forward gear and to prevent any queuing on the public highway. The Site will also include a weigh bridge and secure HGV park up area;
- Vehicular access to the development will be provided through the existing priority T-Junction taken from Wildmoor Lane which will remain unchanged post development initiation;
- Analysis of the most recent five years accident data has shown that there has been two slight accidents recorded in the vicinity of the Site within the five year study period. It is therefore considered that there are no existing safety problems associated with the road network surrounding the Site;
- The proposals will generate approximately five HGV movements per hour which are anticipated to access the Site via the M5. Staff are anticipated to generate up to 16 vehicle trips a day should all members of staff drive to the Site using a private vehicle, however shift start / finish times would be outside of the typical highway network peak hours;
- Overall it is considered that the Site is an existing quarry which has operated on the Site for many years and the additional trips generated by the proposals would not have a material impact; and
- Therefore there are no highways or transport reasons that should prevent the granting of planning consent for the proposals. (page 10)

6.11. WATER ENVIRONMENT

- 6.11.1. A Flood Risk Assessment (2019) has been carried out by Caulmert Ltd.⁴⁶ The report was issued in November 2019 and refers to an earlier Quarry Development Scheme than is presented in the Planning Statement. Further details are included in Appendix TR13 and a summary of findings are provided below.
- 6.11.2. The Flood Risk Assessment (FRA) is required to support a planning application for the Proposed Development, and establishes the suitability of the site in relation to flooding. It takes account of matters raised in the Scoping Opinion (September 2018). The assessment has been carried out in accordance with the requirements of National Planning Policy Framework (NPPF) and its accompanying Planning Policy Guidance.
- 6.11.3. A drainage strategy for the Proposed Development forms part of the FRA. The strategy provides a concept of how the Site will collect, treat, and discharge surface water based on supporting information gathered as part of the FRA compilation.
- 6.11.4. The results of the FRA are summarised in the table below. The Proposed Development is classified as 'Water-compatible development' according to NPPF (Table 2: Flood risk vulnerability classification).

⁴⁶ Flood Risk Assessment and Drainage Strategy, Pinches Quarry Phase 4 Quarry and Landfill Development, Document Reference: 4221-CAU-XX-XX-RP-C-0300.A0-C1, Caulmert Ltd., November 2019

Table 6.9: Flood Risk Assessment Conclusions

CRITERIA	APPLICATION TO THE PROPOSED DEVELOPMENT
1. Development description and location	
1a. What type of development is proposed and where will it be located?	The excavation of sand and gravels, and the landfill of inert waste, located at Pinches Quarry Phase 4.
1b. What is its vulnerability classification?	Water-compatible development
1c. Is the proposed development consistent with the Local Development Documents?	Not mentioned
1d. Provide evidence that the Sequential Test or Exception Test has been applied in the selection of this site for this type of development?	See Section 8 of the report which notes that the Sequential Test is not applicable for this Proposal.
2. Definition of the flood hazard	
2a. What sources of flooding could affect the site?	Surface water from runoff within the site.
2b. Describe how flooding would occur?	Surface water unable to runoff and instead ponds in uncontrolled/unpredictable way.
2c. What are the existing surface water drainage arrangements for the site?	Ad hoc arrangements within adjacent areas of Quarry; surface water allowed to flow down access road to public highway
3. Probability	
3a. Which flood zone is the site within?	The site is within Flood Zone 1.
3b. If there is a Strategic Flood Risk Assessment covering this site, what does it show?	The SFRA shows little variance to current EA flood information.
3c. What is the probability of the site flooding taking account of the contents of the SFRA and of any further site-specific assessment?	The Proposed Development location has an annual probability of flooding of less than 1 in 1000.
3d. What are the existing rates and volumes of runoff generated by the site?	Greenfield runoff flow figures are assumed (presented at Section 6.3/Table 1 of the report)
4. Climate Change	
4a. How is flood risk at the site likely to be affected by climate change?	The flood risk of the site is not predicted to change as a result of climate change.
5. Detailed development proposals	
5a. Provide details of the development layout.	See Appendix 1 Site Layout Plan of the report.
5b. Demonstrate, where appropriate, how land uses most sensitive to flood damage have been placed within the site that are at least risk of flooding.	Not Applicable
6. Flood risk management measures	
6a. How will the site be protected from flooding, including the potential impacts of climate change, over the development's lifetime?	Not Applicable
7. Offsite impacts	
7a. How will it be ensured that the proposed development and the measures to protect the site from flooding will not increase flood risk elsewhere?	Controlled discharge of surface water flow to proposed infiltration basin; opportunity for surface water to infiltrate ground along ditches and trenches; any release from infiltration basin will be at Greenfield runoff rates to Battlefield Brook.
7b. How will runoff from the completed development be prevented from causing an impact elsewhere?	Runoff from the Proposed Development will be managed through SuDS features, which will control flow rates, volumes and water quality leaving the site. Surface water infrastructure to reduce the risk of runoff from reaching public highway.
8. Residual risks	

CRITERIA	APPLICATION TO THE PROPOSED DEVELOPMENT
8a. What flood related risks will remain after the implementation of measures to protect the site from flooding?	The flood risk to the site will remain unchanged
8b. How, and by whom, will these risks be managed over the lifetime of the development?	Risks will be managed by the routine inspection and maintenance of the SuDS features, instigated by the operator of the site.

6.11.5. The report reaches the following conclusions:

- The Proposed Development falls wholly within Flood Zone 1 of the EA's indicative flood outline;
- There are parts of the existing site which are at risk of surface water flooding, however these do not significantly affect the development proposals;
- The Proposed Development is a 'water-compatible development' classification and does not require a Sequential Test;
- Other flood risks considered included: existing drainage, groundwater, overland flow, surface runoff. These are not considered to pose a significant flood risk to the Proposed Development; and
- The Proposed Development remains low risk against future flooding when taking account of climate change.

6.11.6. It is recommended that the Proposed Development is constructed at the location noted subject to these recommendations. There is no requirement to instigate mitigation measures against identified flood risk.

6.11.7. Mitigation against any increase in impermeable areas set out in the conceptual drainage strategy should be developed to detailed design and implemented as part of the Proposed Development.

6.11.8. The ground characteristics at the Site of the proposed infiltration basin, and of the reinstated ground areas, should be assessed for their capacity to receive infiltration. This capacity should inform the overall drainage strategy and volume of the detention basin to limit discharge to Greenfield runoff rates. Implementation of the EA's pollution prevention guidelines should be made when necessary.

6.11.9. Predicted increases in rainfall intensity over the lifetime of the extension period should be accommodated at the Site. Adaptive resilience measures should be identified and enacted so that it can be demonstrated that:

- the most vulnerable Site area is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;
- the Site is appropriately flood resistant and resilient;
- it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;
- any residual risk can be safely managed; and
- safe access and escape routes are included where appropriate, as part of a Site-wide emergency plan.

- 6.11.10. The Site should keep current its surface water drainage maintenance and pollution emergency procedures. Such procedures should include performance monitoring and improvement feedback. There should be continued cooperation with the EA during the lifetime of the development.
- 6.11.11. The Proposed Development provides compliance with the Environmental Permitting Regulations and the Groundwater Framework Directive by implementation of the mitigation measures contained within the Hydrogeological Risk Assessment (see Appendix TR5, ES Volume 2).

7. PLANNING POLICY CONTEXT

7.1. INTRODUCTION

- 7.1.1. This Section outlines the applicable and relevant planning policies which apply to the Proposed Development.
- 7.1.2. Section 38 (6) of the Planning Compulsory Purchase Act 2004 (as amended) requires Local Planning Authorities to determine planning applications in accordance with the Development Plan, unless material considerations indicate otherwise.
- 7.1.3. The current Development Plan consists of the following:
- Waste Core Strategy for Worcestershire, Adopted Waste Local Plan 2012-2017 (Adopted November 2012);⁴⁷
 - Saved Policies of The County of Hereford and Worcester Mineral Local Plan (Adopted April 1997);⁴⁸ and
 - Bromsgrove District Plan 2011-2030 (Adopted January 2017)⁴⁹.
- 7.1.4. Emerging planning policy comprises the Worcestershire Minerals Local Plan Publication Version (August 2019).⁵⁰
- 7.1.5. Other material considerations include the National Planning Policy Framework (NPPF) (February 2019)⁵¹ and National Planning Practice Guidance.⁵²

7.2. WASTE CORE STRATEGY FOR WORCESTERSHIRE, ADOPTED WASTE LOCAL PLAN 2012-2017 (ADOPTED NOVEMBER 2012)

- 7.2.1. The Waste Core Strategy for Worcestershire, Adopted Waste Local Plan 2012-2017 (Adopted November 2012) was adopted in November 2012. (Hereafter referred to as the Worcestershire Waste Core Strategy). It sets out the approach and long term vision to planning for the county's waste management facilities until 2027.
- 7.2.2. The Introduction provides background information regarding key themes including the Spatial Portrait and waste management facilities such as landfill. The former refers to important aspects such as the environment, the economy including reference to sand and gravel reserves and that the restoration of mineral workings may require waste materials to be imported and used as fill.
- 7.2.3. Relevant Policies comprise:
- **Policy WCS1 Presumption in favour of sustainable development:**
(a) When considering development proposals, the Council will take a positive approach that reflects the presumption in favour of sustainable development as outlined in the NPPF and development should

⁴⁷ Waste Core Strategy for Worcestershire, Adopted Waste Local Plan 2012-2017, Worcestershire County Council, Adopted November 2012

⁴⁸ The County of Hereford and Worcester Mineral Local Plan, Hereford and Worcester County Council, Adopted April 1997

⁴⁹ Bromsgrove District Plan 2011-2030, Bromsgrove District Council, Adopted January 2017

⁵⁰ Worcestershire Minerals Local Plan Publication Version, Worcestershire County Council, August 2019

⁵¹ National Planning Policy Framework, Ministry of Housing, Communities and Local Government, February 2019

⁵² Planning Practice Guidance, <https://www.gov.uk/government/collections/planning-practice-guidance>, sourced October 2019

improve the economic, social and environmental conditions in the county and (b) planning applications that accord with the policies in the Development Plan will be approved without delay, unless material considerations indicate otherwise; and

- **Policy WCS5 Landfill and disposal:** No capacity gap has been identified for the landfill or disposal of waste and (a) planning permission will not be granted for the landfill except where it is demonstrated that: (iii) the proposal is essential for operational or safety reasons or is the most appropriate option. In terms of landfill, (d) any proposals for landfill must include: (i) landfill gas management systems and (ii) a restoration scheme which contributes positively to the objectives of the development plan, with details of aftercare for a minimum period of 5 years.

7.2.4. Proposals for new waste management facilities will be permitted where it is demonstrated:

- **Policy WCS6 Compatible land uses:** They are located on a type of land that is identified as compatible in Table 7. 'Active mineral workings or landfill sites' and 'Landfill' (Unenclosed facilities) are identified as 'A compatible land use'. In the Explanatory Text, Table 8 references 'Active mineral workings or landfill sites' and 'Proposals that form a necessary part of a restoration scheme for the site';
- **Policy WCS7 Development associated with existing temporary facilities:** They are operationally related to, or located on a mineral working, landfill site or other waste management facility of a temporary nature, permission will only be granted: (i) for a temporary period, commensurate with the permitted use on site and (ii) where they do not have an adverse impact on the restoration of the site; and
- **Policy WCS8 Site infrastructure and access:** It is demonstrated that: (a) infrastructure on the site is adequate, either as it is or with improvements that form part of the application, (b) the site is well connected to the strategic transport network, (d) proposals will not have unacceptable adverse impacts on safety or congestion on the transport network or amenity along transport routes. Cumulative effects should be considered.

7.2.5. The proposal, including its location, design, operation, landscaping and/or restoration proposals will:

- **Policy WCS9 Environmental assets:** (b) (i) have no unacceptable adverse impacts on identified habitats, species or nature conservation sites and (ii) not lead to substantial harm to or loss of significance of designated or non-designated heritage assets or their settings and (c) it takes advantage of opportunities to enhance the character, quality and significance of environmental assets, their settings or linkages between them;
- **Policy WCS10 Flood risk and water resources:** (a) consider flood risk and facilities (i) will remain safe and operational during flooding events and (ii) will have no unacceptable adverse impact on flood risk and (b) consider any potential impacts on surface and ground water to ensure that facilities ensuring (i) will not result in pollution or have unacceptable adverse impacts on: surface water quality, quantity, biodiversity or the natural flow, and ground water quality, quantity, biodiversity or the natural flow;
- **Policy WCS11 Sustainable design and operation of facilities:** consider sustainable development practices, climate change mitigation and resilience through: (a) the re-use of existing buildings where

appropriate, (e) the consideration of land stability and subsidence and (f) landscaping which enhances, links and extends natural habitats, reflects landscape character; and

- **Policy WCS12 Local characteristics:** (a) contribute positively to the character and quality of the local area and protect and enhance local characteristics by considering (i) the character of the built environment, including appropriate use of form, mass and scale and (ii) the local landscape character as identified in the Worcestershire Landscape Character Assessment and the Worcestershire Historic Landscape Characterisation.

7.2.6. Also of note are the following Policies:

- **Policy WCS13 Green Belt:** Providing the proposal does not constitute inappropriate development or where very special circumstances exist;
- **Policy WCS14 Amenity:** The operation of the facility and associated transport will not have unacceptable adverse impacts on amenity and impacts on (i) air quality, including any fumes, dust and odours or bioaerosols including with reference to issues identified in the Herefordshire and Worcestershire Air Quality Management Plan and those of adjoining authorities, must be taken into account, (iii) noise and vibrations, (iv) insects, vermin and birds (vi) visual intrusion and light pollution and (vii) health. Details should be provided of any mitigation or compensation proposals must be included;
- **Policy WCS15 Social and economic benefits:** (a) They will benefit the local community and sub-regional economy through: (i) contributing towards Worcestershire's equivalent self-sufficiency in waste management capacity and (c) reference to community involvement and how this has informed the development of the proposal; and
- **Policy WCS16:** New development proposed on or near to existing waste management facilities.

7.3. SAVED POLICIES OF THE COUNTY OF HEREFORD AND WORCESTER MINERAL LOCAL PLAN (ADOPTED APRIL 1997)

7.3.1. The County of Hereford and Worcester Mineral Local Plan (MLP) was adopted in April 1997. The original plan period lasted from 1994 to 2003 and there are a number of Saved Policies which apply after 2007. The related Direction Letter states that *'Where policies were originally adopted some time ago, it is likely that material considerations, in particular the emergence of new national and regional policy and also new evidence, will be afforded considerable weight in decisions'*.⁵³

7.3.2. There are two Saved Policies which are relevant to the planning application.

7.3.3. **Saved Policy 1 Preferred Areas (S&G)** notes that planning permission will be granted for applications within preferred areas for sand and gravel extraction, subject to an evaluation against other relevant Development Plan policies. The Site is not allocated within a preferred area but is located within an area of known sand and gravel deposits. Existing mineral planning permissions (as of January 2017) are identified to the north of Bromsgrove. Quarries in production in 1994 and referenced include Chadwick Lane and Chadwick Mill.

⁵³ Government Office for the West Midlands, Planning & Compulsory Purchase Act 2004, Direction Letter, 7 September 2007

7.3.4. **Saved Policy 2 Other Sand and Gravel Deposits** states that applications outwith preferred areas will be considered against the methodology set out in paragraphs 5.3 and 5.4 of the Plan. The Policy mentions that *'If the area is subject to no constraints or only one secondary constraint, planning permission will be granted subject to an evaluation against other relevant Development Plan policies. If the area is subject to a primary constraint or more than one secondary constraint planning permission will not normally be granted'*.

7.4. BROMSGROVE DISTRICT PLAN 2011-2030 (ADOPTED JANUARY 2017)

7.4.1. The Bromsgrove District Plan 2011-2030 was adopted in January 2017 and sets out the long-term vision for development and change for the Plan period up to 2030.

7.4.2. According to the Policies Map (Updated January 2019), the Site is not allocated for employment or residential use and is located within an area of Green Belt.

7.4.3. Specific Policies contained in the Plan include the following.

7.4.4. **Policy BDP1 Sustainable Development Principles** refers to development proposals and consideration of: (a) the ability of the local and strategic road networks to accommodate additional traffic, (b) implications for air quality in the District and proposed mitigation measures, (c) cumulative impacts on infrastructure provision, (d) the quality of the natural environment and potential impacts on biodiversity, water quality, geodiversity, landscape and the provision of/and links to green infrastructure (GI) networks, (e) compatibility with adjoining uses and the impact on residential amenity, (f) impact on visual amenity, (g) the causes and impacts of climate change such as waste and water hierarchies and flood risk, (i) impacts on the historic environment including Heritage Assets and their settings and (j) financial viability and the economic benefits for the District including new homes and jobs.

7.4.5. **Policy BDP4 Green Belt** states that the development of new buildings in the Green Belt is considered to be inappropriate, except in the following circumstances: (d) proportionate extensions to non-residential buildings considering the potential impact on the openness and the purposes of including the land in Green Belt. Proposals that can demonstrate significant benefits to the local economy and/or community will be considered favourably, (e) the replacement of a building provided the new building is in the same use and should not be materially larger than the building it replaces, (g) the partial or complete redevelopment of previously developed sites that would not have a greater impact on the openness of the Green Belt and the purpose of including land within it than the existing development.

7.4.6. Also of note, are the following policies:

- **Policy BDP13 New Employment Development:** Refers to the promotion of (e) sustainable economic development in rural areas through proportionate extensions to existing businesses and considering the potential impact on the openness and the purposes of land in Green Belt. Development that can demonstrate significant benefits to the local economy and/or community will be considered favourably and (g) the creation of jobs for local residents with regards to employment sites;

- **Policy BDP16 Sustainable Transport:** Regarding the undertaking of transport statements;
- **Policy BDP19 High Quality Design:** Concerns the aim of the Council to deliver high quality people focused space by ensuring that development (e) enhances the character and distinctiveness of the local area, (q) incorporates appropriate soft landscaping and measures to reduce the potential impact of pollution including air, noise, vibration, light and water to residents, wildlife and the environment, (r) ensure that the proposed final use (e.g. land contamination) does not create an unacceptable risk to controlled waters. Reference is made to specialist reports required as part of planning applications (e.g. site history, preliminary risk assessment, site investigation and remediation scheme), (s) with regards to air quality, all new developments including those above 0.5 hectare in size should not increase nitrogen dioxide (NO₂), particulate matter (PM₁₀) and carbon dioxide (CO₂) emissions from transport and be addressed in an Air Quality Assessment which should assess the likely impact of the development on local air quality and address (i) cumulative impacts, (t) development proposals should maximise the distance between noise sources and noise sensitive uses (e.g. residential properties);
- **Policy BDP20 Managing the Historic Environment:** Seeks to protect all heritage assets which are significant for their historic, archaeological, architectural or artistic interest;
- **Policy BDP21 Natural Environment:** seeks to achieve better management of the natural environment and development will be expected to: (a) (i) Protect and enhance core areas of high nature conservation value including habitats of principle importance, (b) maintain the favourable conservation status of populations of protected species, (d) achieve net gains in biodiversity, (e) contribute towards the targets set out for priority habitats and species, (f) by creating a coherent and resilient ecological network, (g) protect and enhance the distinctive landscape character of Bromsgrove, in line with the Worcestershire Landscape Character Assessment and Worcestershire Landscape Character Assessment Supplementary Guidance (i) adopt good environmental site practices through a Construction Environmental Management Plan (CEMP);
- **Policy BDP22 Climate Change:** Notes (b) developments should not increase the vulnerability to the range of impacts on climate change during the intended lifetime of the development;
- **Policy BDP23 Water Management:** Safe developments with low environmental impact will be delivered by: (a) supporting developments that consider the Severn River Basin Management Plan and contribute to delivering the Water Framework Directive objectives, (c) ensuring development addresses flood risk from all sources and (d) all developments should work with the Lead Local Flood Authority, SuDS Approval Body and address the Local Flood Risk Management Strategy and its evidence; and
- **Policy BDP24 Green Infrastructure:** Notes (d) development should have regard to and contribute towards, the emerging Worcestershire Green Infrastructure Strategy.

7.5. EMERGING PLANNING POLICY

Emerging Minerals Local Plan

- 7.5.1. Worcestershire County Council are currently in the process of preparing a new Minerals Local Plan. (Hereafter referred to as the Emerging Minerals Local Plan).
- 7.5.2. The Scoping Opinion (September 2018) states that a limited weight should be attached to the Emerging Minerals Local Plan. In addition, Paragraph 48 of NPPF (2019) notes that local planning authorities may give weight to relevant policies in emerging plans (a) dependent on the stage of preparation of the emerging plan and (c) the degree of consistency of the relevant policies to the NPPF.
- 7.5.3. In the interim period since the Scoping Opinion (September 2018), the Emerging Minerals Local Plan process has advanced and the fourth stage consultation took place from 17 December 2018 to 8 February 2019. The most recent stage has involved the publication version consultation which was held in August and September 2019.⁵⁴ The current timetable is for representations to be submitted alongside the Minerals Local Plan to the Secretary of State before the end of 2019. Following which an independent Planning Inspector will assess the 'soundness' and legal compliance of the Plan.⁵⁵ Once adopted, the Plan will set out the long-term planning strategy including making provision for the steady and adequate supply of aggregates including sand extraction and identify allocated sites. The Plan period is to 2035 and beyond dependent on when the Plan is adopted.
- 7.5.4. The Site has been put forward as part of the Emerging Minerals Local Plan as summarised in the table below.

Table 7.1: Emerging Minerals Local Plan (Reference to Pinches (4) Quarry)

STAGE	CONSULTATION DOCUMENTS/REFERENCE TO PINCHES (4) QUARRY
Second Call for Sites (Summer 2015)	Site is submitted for mineral extraction.
Third stage consultation and 3rd Call for Sites (Autumn 2016 - Spring 2017)	Worcestershire Minerals Local Plan Background Document, Call for Sites – Deliverability Assessment, Consultation Document (November 2016) Identified as Site D023-2398 Pinches 4 and located within the North East Worcestershire Strategic Corridor. In the site assessment, all categories apart from operator interest were coded green (indicates that the site is highly likely to be deliverable). Operator interest was categorised as red (No interest). Site D023-2398 Pinches 4 was not allocated for mineral extraction.
	Worcestershire Minerals Local Plan, Third Stage Consultation, Sustainability Appraisal, Environmental Report (December 2016) Identified as Site 26: Pinches 4. The appraisal refers to the loss of Grade 3a BMV agricultural land and potential effects on the Green Belt (preserving openness) and the siting of any proposed buildings. 'Potential Mitigation' states that soil sampling should guide development to avoid BMV agricultural land if it is present. Should this not be appropriate due to environmental and/or economic reasons, the site should be restored to avoid the long-term loss of BMV. In addition, topsoil should be stripped and kept for site restoration whilst any buildings in the Green Belt will need to demonstrate very special circumstances.
4th Call for Sites (Autumn 2017 - Early 2018)	4th Call for Sites Response Document (July 2018) Identified as F007-2505 Pinches 4. The Document summarises the information contained in a Site Promotion Report by B&A on behalf of the Applicant, including aspects raised earlier in the process, namely potential interest by mineral

⁵⁴ Worcestershire County Council, Emerging Minerals Local Plan: Where we are now, <http://www.worcestershire.gov.uk>, sourced October 2019

⁵⁵ Worcestershire County Council, Emerging Minerals Local Plan, http://www.worcestershire.gov.uk/info/20652/emerging_minerals_local_plan/727/emerging_minerals_local_plan_next_steps, sourced October 2019

STAGE	CONSULTATION DOCUMENTS/REFERENCE TO PINCHES (4) QUARRY
	operators. Supporting Appendices included an Agricultural Land Classification Report (desk based study) (2018) which investigated the quality agricultural land. The same report is included as Appendix TR11 (ES Volume 2).

Worcestershire Minerals Local Plan Publication Version (August 2019)

- 7.5.5. Figure 2.2 Sand and gravel resources identifies the sand and gravel deposits that have been assessed as “key” or “significant” resources in Worcestershire County Council Analysis of Mineral Resources (April 2019). This includes areas adjacent to the M50 corridor.
- 7.5.6. The baseline Local Aggregate Assessment (July 2018)⁵⁶ identifies an annual production guideline of 0.607 million tonnes. (paragraph 2.26)
- 7.5.7. It is projected that a further 11.53 million tonnes of sand and gravel will need to be permitted in Worcestershire over the plan period to meet the annual production guideline and to maintain at least a 7 year landbank of permitted reserves.⁵⁷ Multiple sand and gravel workings are likely to be required over the life of the plan in order to achieve this level. This is due to a combination of the quantities of sand and gravel needed, the scale and distribution of the resources and given that mineral workings in the county are generally small scale when compared to elsewhere in the country. (paragraph 2.27)
- 7.5.8. Mineral supply will be focused in five strategic corridors including the North East Worcestershire Strategic Corridor which includes the Site. Mineral sites should have a clear vision for delivering benefits during the winning and working phases together with offering high-quality restoration at the earliest opportunity to enable an appropriate after-use.
- 7.5.9. The following draft policies are of note:
- **Draft Policy MLP1 Strategic Location of Development:** (a) planning permission will be granted for mineral development where it is located within a strategic corridor and: (i) it is within an allocated site (which includes areas of search^{*58} shown on Figure 4.1 Key diagram and defined on the Policies Map^{**59} and specific sites and preferred areas allocated in the Mineral Site Allocations Development Plan Document) or (ii) it is demonstrated that the mineral resource has qualities which mean a sustainable supply of the mineral cannot be delivered from extant or allocated sites;
 - **Draft Policy MLP3 Green Infrastructure:** Protects and enhances green infrastructure networks taking account of: (a) green infrastructure priorities of the relevant strategic corridor, (b) the local economic, social and environmental context of sites, (c) potential impacts of climate change and (d) site-specific opportunities to: (i) protect and enhance inherent landscape character, (ii) conserve, restore and enhance ecological networks and deliver net gains for

⁵⁶ Footnote 53: Worcestershire County Council (July 2018) Worcestershire Local Aggregate Assessment (using data covering the period up to 31/12/2016)

⁵⁷ Footnote 54: Figure based on the production guideline of 0.607 million tonnes each year from 2017 to 2035, but the plan includes sufficient flexibility to adapt to any changes in the production guideline.

⁵⁸ * Some flexibility will be applied when considering whether a proposal for building stone is within an area of search for building stone as these are based on point data.

⁵⁹ ** The Policies Map defines the Minerals Local Plan’s land-use designations and allocations and is available as part of an interactive minerals mapping tool at www.worcestershire.gov.uk/minerals.

biodiversity (iv) reduce the causes and impacts of flooding and (v) protect and enhance the surface water and groundwater resources at a local scale;

- **Draft Policy MLP6 North East Worcestershire Strategic Corridor:** Refers to the quality, character and distinctiveness of the corridor through the delivery and enhancement of green infrastructure networks and the following green infrastructure priorities (a) conserve and restore permanent pasture, incorporating lowland heathland, acid grassland and scrub habitats, (b) conserve, enhance and restore characteristic hedgerow patterns and tree cover along watercourses and streamlines and (c) slow the flow of water in upper reaches of the catchment;
- **Draft Policy MLP9 Contribution of Substitute, Secondary and Recycled Materials and Mineral Waste to Overall Minerals Supply:** Concerns the supply of minerals from substitute, secondary or recycled materials or mineral waste where they accord with the policies of the Waste Core Strategy. It must be clearly demonstrated that this would not have an adverse impact on working the site or on the ability to deliver high-quality restoration at the earliest opportunity;
- **Draft Policy MLP10 Steady and Adequate Supply of Sand and Gravel:** Refers to maintaining a steady and adequate supply of sand and gravel in relation to (a) a landbank of permitted reserves of at least seven years and/or (b) enabling the County's productive capacity to be maintained or enhanced;
- **Draft Policy MLP17 Prudent Use of Resources:** (a) Minimise use of water and energy in buildings, plant and transport and (c) balance the benefits of maximising extraction with any benefits of allowing sterilisation of some of the resource, taking account of: (i) the need for the mineral resource, (ii) the ability to deliver the relevant strategic corridor priorities, (iii) the ability to provide an appropriate landform for beneficial after-use, (iv) the ability to deliver high-quality restoration at the earliest opportunity, (v) the appropriateness of importing fill materials on to site, and the likely availability of suitable fill materials, (vi) the need to protect and enhance inherent landscape character; and (vii) the need to manage or mitigate impacts on the built, historic, natural and water environment and amenity;
- **Draft Policy MLP18 Green Belt:** Seeks to (a) preserve the openness of the Green Belt and (b) proposals should not conflict with the purposes of including land within the Green Belt;
- **Draft Policy MLP19 Amenity:** Refers to associated transport and potential unacceptable adverse effects on amenity, health and well-being and the environment, including unacceptable harm to sensitive receptors from: (a) air quality, (b) dust, (c) odour, (d) noise and vibration, (e) light, (f) visual amenity and visual intrusion, (g) land instability; and/or (h) contamination;
- **Draft Policy MLP20 Access and Recreation:** Includes (b) no unacceptable adverse effects on the integrity and quality of (c) existing rights of way network;
- **Draft Policy MLP21 Biodiversity:** Refers to (a) conserve, restore and enhance ecological networks and deliver net gains for biodiversity, integrating other green infrastructure components where appropriate, (b) minimise adverse effects on and avoid significant harm to biodiversity and (f) not result in significant harm to locally important ecological networks identified in the Local Biodiversity Action Plan

unless appropriate mitigation and/or compensation measures are proposed;

- **Draft Policy MLP22 Historic Environment:** Aims to protect (b) designated heritage assets or their setting, (c) any non-designated heritage assets or their setting and (d) any heritage asset(s) to be lost (wholly or in part), including assets of archaeological interest;
- **Draft Policy MLP23 Landscape:** Seeks to protect, conserve and enhance the character and distinctiveness of the landscape during the lifetime of individual mineral sites. Including (a) the enhancement of inherent landscape character, integrating other green infrastructure components and ensuring that (b) there are no unacceptable adverse effects on the inherent landscape character. Potential benefits from proposals will be set against the significance of any impacts with regards to (i) significant changes to the key landscape characteristics identified in the Worcestershire Landscape Character Assessment and Worcestershire Historic Landscape Characterisation or (ii) the introduction of landscape features that weaken the inherent landscape character of the area;
- **Draft Policy MLP24 Soils:** Concerns the protection and conservation of soil resources and their quality including (a) the retention of all soils within sites and (b) the appropriate provision for: (i) soil stripping, (ii) soil handling, (iii) soil storage and (iv) re-use of soils;
- **Draft Policy MLP25 Best and Most Versatile Agricultural Land:** Seeks to (a) prioritise the development of poorer-quality land in preference to higher-quality land, avoiding significant development of best and most versatile agricultural land unless it is demonstrated to be necessary and (c) optimise the restoration of agricultural land quality and integration of green infrastructure components, where the proposed after-use includes agriculture;
- **Draft Policy MLP26 Geodiversity:** Seeks to protect, conserve and enhance geodiversity in terms of (b) no unacceptable adverse effects on geological or geomorphological sites or features;
- **Draft Policy MLP27 Water Quality and Quantity:** Protects and enhances the quality, quantity and flow of surface water and groundwater resources including (a) improves opportunities to enhance surface water and groundwater resources including integrating other green infrastructure components where appropriate and (b) will not have an unacceptable adverse effect on the quality, quantity or flow of ground or surface water;
- **Draft Policy MLP28 Flooding:** Refers to (a) optimising opportunities to reduce the causes and impacts of flooding, integrating other green infrastructure components where appropriate and (e) not increase flood risk elsewhere; and
- **Draft Policy MLP29 Transport:** Mentions potential impacts on the local and strategic transport network including (a) the road transport of minerals and materials will only be acceptable where it is demonstrated that alternative modes are not practicable or are not environmentally preferable, (c) connects to the strategic transport network without having an unacceptable adverse effect on safety or congestion of the local or strategic transport network and (d) will not have unacceptable adverse effects on the environment or amenity along transport routes.

7.6. OTHER MATERIAL CONSIDERATIONS

7.6.1. Other material considerations comprise relevant national policy and guidance.

National Planning Policy Framework (NPPF) (February 2019)

7.6.2. National Planning Policy Framework (NPPF) which was first published in March 2012 has subsequently been updated, most recently in February 2019. The NPPF sets out the Government's planning policies for England and how these should be applied. It provides a framework for local planning authorities in the development of planning policy and is a material consideration in planning decisions.

7.6.3. **Section 2 Achieving sustainable development** states *'The purpose of the planning system is to contribute to the achievement of sustainable development'* (paragraph 7). The planning system has three overarching and interdependent objectives, namely economic, social and environmental (paragraph 8). At the heart of the NPPF is a presumption in favour of sustainable development and *'plans and decisions should apply a presumption in favour of sustainable development'*. In terms of decision-taking, *'approving development proposals that accord with an up-to-date development plan without delay'* (paragraph 11).

7.6.4. **Section 13 Protecting Green Belt land** notes 'the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence'. (paragraph 133)

7.6.5. The five purposes of Green Belt are:

- '(a) to check the unrestricted sprawl of large built-up areas;
- (b) to prevent neighbouring towns merging into one another;
- (c) to assist in safeguarding the countryside from encroachment;
- (d) to preserve the setting and special character of historic towns; and
- (e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land'. (paragraph 134)

7.6.6. A local planning authority should consider the construction of new buildings as inappropriate in the Green Belt, albeit, exceptions apply to (g) the partial or complete redevelopment of previously developed land whether redundant or in continuing use (excluding temporary buildings) which would: – not have a greater impact on the openness of the Green Belt than the existing development. (paragraph 145)

7.6.7. Certain other forms of development are not inappropriate in the Green Belt if they preserve its openness and do not conflict with the purposes of including land within it such as (a) mineral extraction (paragraph 146).

7.6.8. **Section 17 Facilitating the sustainable use of minerals** highlights that it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. (paragraph 203)

7.6.9. When deciding planning applications, great weight should be given to the benefits of mineral extraction, including to the economy and consideration should be given to matters such as (b) that are no unacceptable adverse impacts on the natural and historic environment or human health including

cumulative effects of multiple impacts from individual sites and/or from a number of sites in a locality, (c) ensure that any unavoidable noise, dust and particle emissions are controlled, mitigated or removed at source (as set out in Minerals PPG), and establish suitable noise limits for extraction in proximity to noise sensitive properties; and (e) provide for restoration and aftercare at the earliest opportunity through appropriate conditions (paragraph 205).

7.6.10. Minerals planning authorities should plan for a steady and adequate supply of aggregates by (f) maintaining landbanks of at least seven years for sand and gravel. (paragraph 207)

7.6.11. Also of note are the following Sections in NPPF:

- **Section 6 Building a strong, competitive economy:** Significant weight should be placed on the need to support economic growth and productivity and consideration given to local business needs and wider opportunities for development (paragraph 80);
- **Section 9 Promoting sustainable transport:** Refers to the undertaking of transport statements (paragraph 111);
- **Section 11 Making effective use of land:** Planning policies and decisions should promote an effective use of land while safeguarding and improving the environment and ensuring safe and healthy living conditions. Much use as possible should be made of previously-developed or 'brownfield' land (paragraph 117);
- **Section 12 Achieving well-designed places:** Good design is a key aspect of sustainable development. Planning policies and decisions should ensure that developments (a) will function well and add to the overall quality of the area in the short term and also over the lifetime of the development (paragraph 127);
- **Section 14 Meeting the challenge of climate change, flooding and coastal change:** Sets out the considerations for planning and flood risk including that development should be directed away from areas at highest risk. (paragraph 155);
- **Section 15 Conserving and enhancing the natural environment:** Planning policies and decisions should contribute to and enhance the natural and local environment by: (b) recognising the intrinsic character and beauty of the countryside and benefits of the best and most versatile agricultural land, trees and woodland, (d) minimising impacts on and providing net gains for biodiversity, (e) preventing new and existing development from contributing to unacceptable levels of soil, air, water or noise pollution or land instability and (f) remediate and mitigate despoiled, degraded and unstable land where appropriate (paragraph 170); and
- **Section 16 Conserving and enhancing the historic environment:** Concerns the protection of designated heritage assets and their settings (paragraph 194) including Listed Buildings and non-designated heritage assets (paragraphs 195 and 197) when considering potential impacts.

National Planning Practice Guidance

7.6.12. The Ministry of Housing, Communities and Local Government provides National Planning Practice Guidance (PPG) online resources relating to a number of categories and includes guidance relating to Green Belt (July 2019) and Minerals (March 2014).

Green Belt PPG (July 2019)

- 7.6.13. The guidance provides advice on the role of the Green Belt in the planning system.
- 7.6.14. What factors can be taken into account when considering the potential impact of development on the openness of the Green Belt? **Paragraph 1** states *'Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. By way of example, the courts have identified a number of matters which may need to be taken into account in making this assessment. These include, but are not limited to:*
- *openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;*
 - *the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and*
 - *the degree of activity likely to be generated, such as traffic generation'.* (Reference ID: 64-001-20190722, Revision date: 22 07 2019)

Minerals PPG (March 2014)

- 7.6.15. Guidance is provided on the planning for mineral extraction in plan making and the application process.
- 7.6.16. Under what circumstances would it be preferable to focus on extensions to existing sites rather than plan for new sites? **Paragraph 10** notes *'The suitability of each proposed site, whether an extension to an existing site or a new site, must be considered on its individual merits, taking into account issues such as:*
- *need for the specific mineral;*
 - *economic considerations (such being able to continue to extract the resource, retaining jobs, being able to utilise existing plant and other infrastructure), and;*
 - *positive and negative environmental impacts (including the feasibility of a strategic approach to restoration).*
 - *the cumulative impact of proposals in an area'.* (Reference ID: 27-010-20140306, Revision date: 06 03 2014)
- 7.6.17. What are the key stages that must be considered when considering restoration and aftercare conditions? **Paragraph 38** states *'Restoration and aftercare of mineral sites involves a number of key stages, which mineral planning authorities should take into account as appropriate when preparing restoration and aftercare conditions:*
- *stripping of soils and soil-making materials and either their storage or their direct replacement (i.e. 'restoration') on another part of the site;*
 - *storage and replacement of overburden;*
 - *achieving the landscape and landform objectives for the site, including filling operations if required, following mineral extraction;*
 - *restoration, including soil placement, relief of compaction and provision of surface features;*

-
- *aftercare*: (Reference ID: 27-038-20140306, Revision date: 06 03 2014)

PLANNING ASSESSMENT

7.7. INTRODUCTION

- 7.7.1. This Section assesses the Proposed Development with regards to the Development Plan and other material considerations outlined in Section 7: Planning Policy Context. The key planning policy issues
- 7.7.2. Each planning issue is addressed in turn as follows:
- Principle of Development;
 - Green Belt; and
 - Environmental Considerations in relation to Air Quality, Biodiversity, Contaminated Land and Ground Stability, Cultural Heritage, Health Impacts, Landscape and Visual, Noise, Soils, Transport and Water Environment.

7.8. PRINCIPLE OF DEVELOPMENT

Need

- 7.8.1. The County of Hereford and Worcester Mineral Local Plan was adopted in 1997 and Saved Policy 2 Other Sand and Gravel Deposits is relevant.
- 7.8.2. When considering the Site in relation to the Stage 1 primary (national) and secondary (local and regional) constraints. The Site has existing access from Wildmoor Lane and following restoration, the Site will be restored primarily to agricultural grassland. This is also relevant in terms of Stage 2 which refers to the restoration of sites within the Green Belt. No specific primary or secondary constraints apply to the Site. The submitted Technical Reports assess aspects such as BMV agricultural land, traffic issues, landscape and visual matters, the Groundwater Source Protection Zone and sensitive receptors. This includes the criteria listed under bullet 13 item i to vi (landscape features) and bullet 14 item a to c (visual impacts).
- 7.8.3. The associated Direction Letter states that due to when policies were originally adopted that the emergence of new national and regional policy alongside new evidence will be given considerable weight in planning decisions.
- 7.8.4. Section 17 of NPPF (2019) regarding the sustainable use of minerals states that Minerals planning authorities should plan to have a landbank of at least seven years for sand and gravel. This is also noted in the Emerging Minerals Local Plan through Draft Policy MLP10 Steady and Adequate Supply of Sand and Gravel which refers to maintaining a steady and adequate supply of sand and gravel in relation to (a) a landbank of permitted reserves of at least seven years and/or (b) enabling the County's productive capacity to be maintained or enhanced.

- 7.8.5. Draft Policy MLP1 Strategic Location of Development and Draft Policy MLP6 North East Worcestershire Strategic Corridor are relevant. According to the Policies Map, the majority of the Site (apart from the most north-western environs which includes an area of hardstanding) is within Allocated Sites for the solid sand and gravel area of search, whilst the southern part of the Site is within the silica sand area of search.
- 7.8.6. The Site is located within Resource area 3/7 Clent to Lydiate Ash which is identified as a 'Key' resource and has an average resource depth of 60.4m.⁶⁰
- 7.8.7. Based upon historic knowledge of Pinches 1 and 2 Quarries and more recently the experience of the mineral reserve in Pinches 3 Quarry, the estimate of the mineral resource has been established. This is further endorsed by the borehole data provided in the Appendix TR4: Environmental Setting and Site Design (2019) (ES Volume 2) (see Appendix ESSD4).
- 7.8.8. The Mineral Site Allocations Development Plan Document is currently being prepared by WCC. Sites previously promoted for consideration in the DPD include the Site which is identified as Site D023-2398 Pinches 4.
- 7.8.9. Restoration will be through the importation of inert waste material and Policy WCS5 Landfill and disposal and Policy WCS11 Sustainable design and operation of facilities of the Worcestershire Waste Core Strategy (Adopted November 2012) are relevant. In addition, Policy WCS6 Compatible land uses also notes that for 'Active mineral workings or landfill sites' that 'Landfill' is a compatible land use and forms a necessary part of some restoration schemes.
- 7.8.10. Infilling is the most appropriate option in this instance and the Environmental Setting and Site Design (June 2019) (Appendix TR4, ES Volume 2) sets out the landfill gas monitoring process which will be carried out. Whilst the Restoration Scheme will contribute positively to the objectives of the Development Plan and aftercare will be undertaken for a period of five years.

Economic Growth and Jobs

- 7.8.11. Section 6 of NPPF (2019) states that consideration should be given to local business needs and wider opportunities for development. The Worcestershire Waste Core Strategy (Adopted November 2012) through Policy WCS15 Social and economic benefits and Bromsgrove District Plan 2011-2030 (Adopted January 2017) notes the importance of community involvement, local jobs and the economy.
- 7.8.12. Employment will entail quarry manager and deputy and other operatives. In all eight direct jobs will be created.
- 7.8.13. A public consultation event was held on 22 November 2019 at Bournheath Community Centre. This allowed stakeholders including Council representatives, local community groups and residents to view and raise issues relating to the Proposed Development.
- 7.8.14. Policy BDP13 New Employment Development of the Bromsgrove District Plan 2011-2030 (Adopted January 2017) reflects similar matters and also refers to (e) proportionate extensions to existing businesses and potential impacts on the openness and the purposes of land in Green Belt. A phased approach has been adopted for the Proposed Development. Processing of the mineral will

⁶⁰ Assessment of resource for the Fourth Stage consultation on MLP (August 2018), Appendix 3: Analysis of aggregate resources in ECA 3: North Worcestershire Hills

take place via mobile plant within the Site and the stockyard area will be located in the north-western part of the Site in an area of existing hardstanding.

Sustainable Development

- 7.8.15. Section 2 of NPPF (2019) emphasises the importance of achieving sustainable development through economic, social and environmental objectives. In relation to Section 15 Conserving and enhancing the natural environment and Section 17 Facilitating the sustainable use of minerals, the Technical Reports submitted as part of the ES have demonstrated that the Proposed Development will not result in unacceptable environmental effects (i.e. soil, air, water or noise pollution or land instability).
- 7.8.16. The above also applies to Policy BDP1 Sustainable Development Principles of the Bromsgrove District Plan 2011-2030 (Adopted January 2017) and Policy WCS1 Presumption in favour of sustainable development of the Worcestershire Waste Core Strategy (Adopted November 2012).
- 7.8.17. Section 11 of NPPF (2019) concerns the effective use of land and the Proposed Development will make use of existing buildings, infrastructure and access arrangements.
- 7.8.18. Minerals PPG (March 2014) refers to circumstances when it would be preferable to focus on extensions to existing sites rather than plan for new sites. Paragraph 10 references matters such as need for specific minerals, economic considerations, positive and negative environmental impacts and the cumulative impact of proposals.
- 7.8.19. The Proposed Development will use the existing access road to the Site and associated infrastructure. It will also upgrade or replace existing buildings to provide temporary facilities linked to the duration of extraction, infilling and restoration.
- 7.8.20. In terms of the Worcestershire Waste Core Strategy (Adopted November 2012), Policy WCS7 Development is relevant. In addition, Policy WCS8 Site infrastructure and access refers to the provision of adequate Site infrastructure and improvements made through proposals and individuals sites relation to the strategic transport network and potential cumulative effects.

7.9. GREEN BELT

- 7.9.1. The Site is located in the West Midlands Green Belt. NPPF (2019) states that development such as (a) mineral extraction is not inappropriate provided it preserves the openness of the Green Belt and does not conflict with the purposes of including land within it.
- 7.9.2. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open and the essential characteristics of Green Belts include their openness and their permanence.
- 7.9.3. With regards to National Planning Practice Guidance, Green Belt PPG (July 2019), Paragraph 1 notes that when considering openness of the Green Belt, that openness is has both spatial and visual aspects, the duration of the development in question and whether land will be returned to its original state or to an equivalent (or improved) state of openness and the degree of activity likely to be generated including traffic generation.

- 7.9.4. Mineral extraction is a temporary activity, albeit in the long term with an estimated 14 years in terms of the Proposed Development when considering infilling. This estimate is based on a Spring 2021 start to the end of 2034 for restoration completion. The north-western part of the Site and associated access road falls within a current consent relating to Pinches 3 Quarry (Reference No. 08/000055/CM). It will use existing access road and associated infrastructure and will upgrade or replace existing buildings to provide temporary facilities linked to the duration of extraction, infilling and restoration. Mitigation measures include screen bunds and progressive restoration. Following which the Site will primarily be restored to an agricultural afteruse.
- 7.9.5. The LVIA has explored visual and landscape matters relating to the Green Belt including the recent strategic Green Belt review by Bromsgrove District Council (see Appendix TR9, ES Volume 2).⁶¹
- 7.9.6. The Proposed Development does not represent inappropriate development and concurs with material considerations outlined above, current planning policy through the Worcestershire Waste Core Strategy (Adopted November 2012) Policy WCS13 Green Belt and the Bromsgrove District Plan 2011-2030 (Adopted January 2017) Policy BDP4 Green Belt as well as the Emerging Minerals Local Plan, namely in Draft Policy MLP18 Green Belt.

7.10. ENVIRONMENTAL CONSIDERATIONS

Air Quality

- 7.10.1. An Air Quality Assessment (2019) has been carried out in line with current guidance and best practice.
- 7.10.2. Reference is made to the mitigation measures incorporated into the Proposed Development such as bunds and sensitive receptors considered include residential properties, nature conservation sites and a commercial property.
- 7.10.3. The Site is not close to an Air Quality Management Area and current annual average background levels of Particulate Matter are relatively low. Furthermore, proposed mineral extraction and associated processes will take place on Site. Consequently, air quality impacts are insignificant and overall dust impacts are not significant.
- 7.10.4. After considering the above, the Proposed Development will concur with NPPF (2019), particularly in relation to conserving and enhancing the natural environment (Section 15) and the sustainable use of minerals (Section 17). It also adheres to local planning policy, notably:
- Worcestershire Waste Core Strategy (Adopted November 2012): Policy WCS14 Amenity;
 - Bromsgrove District Plan 2011-2030 (Adopted January 2017): Policy BDP1 Sustainable Development Principles and BDP19 High Quality Design; and
 - Emerging Minerals Local Plan: Draft Policy MLP19 Amenity.

Biodiversity

⁶¹ Green Belt Purposes Part One Assessment, Strategic Assessment of the Green Belt Purposes, Bromsgrove District Council, August 2019 Version

- 7.10.5. The Ecological Impact Assessment (2019) evaluates current habitats and species on Site and identifies mitigation, compensation and enhancement measures.
- 7.10.6. The only feature considered to be of value (in a site context) is the invertebrate (burrowing bee and wasp) habitat on small areas of sloping bare ground. There are also legal obligations with regard to Japanese knotweed, nesting wild birds (active nests) and badger (active setts). Since there are no habitats present that are considered to be of greater than negligible value, no significant direct impacts are considered likely.
- 7.10.7. The report concludes that the Proposed Development will not have significant adverse impacts on statutory and non-statutory sites of nature conservation value in the local vicinity.
- 7.10.8. In NPPF (2019), Section 15 Conserving and enhancing the natural environment refers to the importance of minimising impacts on and providing net gains for biodiversity. This is also reflected elsewhere in current and emerging planning policy:
- Worcestershire Waste Core Strategy (Adopted November 2012) through Policy WCS9 Environmental assets and Policy WCS14 Amenity;
 - Bromsgrove District Plan 2011-2030 (Adopted January 2017) through Policy BDP21 Natural Environment; and
 - Emerging Minerals Local Plan through Draft Policy MLP3 Green Infrastructure and Draft Policy MLP21 Biodiversity.
- 7.10.9. The proposed Restoration Scheme to agriculture includes a significant nature conservation element. It seeks to ensure a positive net biodiversity gain, based largely on the creation of habitats of nature conservation value. These measures are designed to be fully in keeping with the technical research paper Worcestershire County Council has produced which sets out priorities for mineral site restoration strategies at landscape scales in documents provided by WCC.

Contaminated Land and Ground Stability

- 7.10.10. As outlined in the Preliminary Sources Study Report (December 2019), evidence from historic quarrying operations in the area suggests that below the completely weathered zone the Wildmoor Sandstone and Chester Formation is likely to provide a suitable high wall face to stand sub-vertically as shown on Drawing PN1079-D11 Sheets 1 to 8. It is likely that this face would be stable for the life of the quarrying operation, and allow controlled filling operations to restore the quarry void. With regards to ground water, once restoration is completed, rainwater runoff will be managed by surface water control using swales and porous “field” drains. Groundwater flow will return to current pathways following restoration.
- 7.10.11. The above will concur with Draft Policy MLP19 Amenity of the Emerging Minerals Local Plan.

Cultural Heritage

- 7.10.12. Section 16 of NPPF (2019) refers to the conservation and enhancement of the historic environment refers to the protection of designated heritage assets and their settings and non-designated heritage assets. Similar protection is also echoed through current local and emerging planning policy.

- 7.10.13. The Historic Environment Desk-based Assessment (October 2019) has been undertaken in line with NPPF (2019).
- 7.10.14. The Site does not contain any designated or undesignated heritage assets. Based on available information the potential for the survival of significant archaeological remains within the Site is 'low - medium'. Low equates to 'Features very unlikely to be encountered' and medium 'Possibility that features may occur/be encountered'. The report recommends that should planning permission be granted than advice should be sought from Bromsgrove District Council regarding the need for further archaeological work
- 7.10.15. With regards to nearby Listed Buildings, the Site does not contribute to their settings significance and currently includes negative visual elements (e.g. an open pit and a machinery yard). Although the Proposed Development may have short term changes to the setting of the surrounding assets, the long-term landscaping and restoration proposals will lead to visual improvements by removing the existing negative elements.

Health Impacts

- 7.10.16. A Health Impact Assessment (2019) has been carried out to address the health implications on a population resulting from the Proposed Development. The report identifies potential negative impacts and suggested mitigation measures.
- 7.10.17. In the short term with respect to noise nuisance concerns, although bunds will be included as part of mitigation measures, it suggested that noise monitoring should be undertaken to determine actual noise levels on Site boundaries.
- 7.10.18. Access to the physical environment may be reduced near to the Site (e.g. walking or cycling) due to the local community perceiving a risk from the quarrying operation. As part of mitigation measures, the report recommends the implementation of safe operational procedures and communication of these measures to assure the local population that areas can still be safely used for recreational purposes.
- 7.10.19. With respect to fugitive emissions to air from mineral extraction activities and associated traffic movements, although the Air Quality Assessment (2019) found that overall, dust impacts associated with site activities and HGV movements are deemed 'not significant', at each Phase of the Proposed Development, dust monitoring at strategic locations should be undertaken if deemed necessary.
- 7.10.20. With regards to noise, dust and water quality issues which may cause stress and anxiety, it is suggested that the Applicant should communicate with relevant stakeholders to maintain a transparent relationship. When considering health impacts (safety of workers and the public), it is recommended that the Applicant updating their safe operational procedures and infrastructure should be extended.
- 7.10.21. Positive health impacts identified include the potential for active transport, economic development and in the long term, the restoration of the Site.
- 7.10.22. After considering the above, the Proposed Development will concur with Bromsgrove District Plan 2011-2030 (Adopted January 2017) - Policy BDP1 Sustainable Development Principles and the Worcestershire Waste Core Strategy (Adopted November 2012), namely Policy WCS14 Amenity. It also corresponds with the Emerging Minerals Local Plan, Draft Policy MLP19 Amenity as the Proposed Development including associated transport will not

have unacceptable adverse effects on amenity, health and well-being or the environment.

Landscape and Visual

- 7.10.23. The Landscape and Visual Impact Assessment (2019) has been undertaken with reference to current Landscape Character Assessments (at a national and county level) and strategic reports relevant to the restoration of mineral sites.
- 7.10.24. NPPG (2019) in Section 12 Achieving well-designed places refers to the importance of good design being considered during the lifetime of the development. The Proposed Development includes suitable mitigation measures in landscape and visual terms (e.g. screen bunds). Stripped soils will be stored on Site in the aforementioned screen bunds and used as part of progressive restoration.
- 7.10.25. The Site is located in the Principal Settled Farmlands Landscape Type which is noted for small to medium scale agricultural fields divided by hedgerows and intermittent hedgerow trees. The LVIA assessed landscape character and visual effects for sensitive receptors and concluded that the Proposed Development did not result in significant or overriding **adverse** effects to both the character and value of the adjoining landscape. No significant visual effects were identified in relation to residents, footpath users, road users and visitors to the Waseley Hills Country Park.
- 7.10.26. The Restoration Scheme will return the Site primarily to an agricultural use with hedgerows and intermittent hedgerow trees (native species). A flood control basin and pond together with associated wetland areas will be located in the north-western periphery of the Site. The pond will link to the drainage ditches along the edge of the field boundaries. Small tracts of woodland (native species broadleaf woodland) will be incorporated. This will help to increase the overall woodland cover and represents sensitive and appropriate planting. This will be appropriate in regards to current landscape character and guidelines including the Worcestershire Landscape Character Assessment (2012) and associated documents. This will provide an opportunity to enhance the existing natural environment including with respect to the immediate vicinity and in a wider context (Section 15).
- 7.10.27. The above would concur with the following:
- Bromsgrove District Plan 2011-2030 (Adopted January 2017), in particular Policy BDP1 Sustainable Development Principles, Policy BDP19 High Quality Design, Policy BDP21 Natural Environment and Policy BDP24 Green Infrastructure; and
 - Worcestershire Waste Core Strategy (Adopted November 2012): Policy WCS9 Environmental assets, Policy WCS12 Local characteristics and Policy WCS14 Amenity.
- 7.10.28. With regards to the Emerging Minerals Local Plan, Draft Policy MLP3 Green Infrastructure, Draft Policy MLP19 Amenity and Draft Policy MLP23 Landscape are relevant. Draft Policy MLP6 North East Worcestershire Strategic Corridor is of note in that the Restoration Scheme will enhance existing habitats and provide new areas of suitable green infrastructure. It would also be suitable with regards to the following:
- The Principal Settled Farmlands Landscape Type is categorised under L14 Landscape Types and the Forest Sandstones Ecological Zone E6:

Trees and Woodland in Worcestershire: Biodiversity and Landscape Guidelines for their planting and management (2010);⁶²

- Hagley Hinterland Environmental Character Area 10: Worcestershire Green Infrastructure Strategy 2013 – 2018 (2012);⁶³ and
- Priority Habitats identified in the Biodiversity and Mineral Sites in Worcestershire Guidance for the Sustainable Management of Biodiversity Action Plan Habitats at Worcestershire Mineral Sites (2013)⁶⁴ and the Worcestershire Biodiversity Action Plan (2018).⁶⁵

Noise

7.10.29. A Noise Assessment (2019) has been undertaken in line with NPPF (2019) and Planning Policy Guidance.

7.10.30. The indicated noise levels associated with the continued extraction and processing and landfill operations would remain acceptable and below a level which would result in any significant adverse impacts at surrounding properties.

7.10.31. The Proposed Development will concur with current planning policy including: Bromsgrove District Plan 2011-2030 (Adopted January 2017), namely Policy BDP1 Sustainable Development Principles and the Worcestershire Waste Core Strategy (Adopted November 2012) through Policy WCS14 Amenity. This also applies to the Emerging Minerals Local Plan, regarding Draft Policy MLP19 Amenity.

Soils

7.10.32. Section 15 of NPPF (2019) highlights the importance of conserving the best and most versatile agricultural land.

7.10.33. The Agricultural Land Classification Report (desk based study) (2018) established the principal areas are not Grade 3a and that the small area that might fit the grading criteria is highly unlikely to be farmed or managed to this grade given the wider lower quality land and isolation of the field unit.

7.10.34. In the Emerging Minerals Local Plan, Draft Policy MLP24 Soils notes the importance of the protection and conservation of soil resources and their quality. Draft Policy MLP25 Best and Most Versatile Agricultural Land highlights the importance of including green infrastructure components, where the proposed after-use includes agriculture. As part of the Proposed Development, soils will be stored in temporary bunds which will provide screening properties. Following which, the Site will primarily be restored to an agricultural afteruse with hedgerow (and hedgerow trees) and small blocks of woodland.

Transport

7.10.35. The Transport Statement (September 2018) which has been undertaken in line with current best practice (Appendix TR12, ES Volume 2).

7.10.36. Consideration is given to vehicle levels associated with Pinches 3 Quarry using Site infrastructure.

⁶² Trees and Woodland in Worcestershire: Biodiversity and Landscape Guidelines for their planting and management, Worcestershire County Council and Forestry Commission, March 2010

⁶³ Worcestershire Green Infrastructure Strategy 2013 – 2018, Worcestershire Green Infrastructure Partnership, 2012

⁶⁴ Biodiversity and Mineral Sites in Worcestershire Guidance for the Sustainable Management of Biodiversity Action Plan Habitats at Worcestershire Mineral Sites, Technical Research Paper, Worcestershire County Council, November 2013

⁶⁵ Worcestershire Biodiversity Action Plan 2018, Worcestershire County Council, June 2019

- 7.10.37. Reference is made to the internal layout of the Site and associated Site infrastructure. In addition, there are no existing safety problems associated with the road network surrounding the Site. The Proposed Development will generate approximately five HGV movements per hour which are anticipated to access the Site via the M5, whilst staff are anticipated to generate up to 16 vehicle trips a day should all members of staff drive to the Site. Therefore, additional trips generated by the Proposed Development would not have a material impact. The report concludes that there are no highways or transport reasons that should prevent the granting of planning consent for the proposals.
- 7.10.38. The above accords with current local planning policy in the Bromsgrove District Plan 2011-2030 (Adopted January 2017) through Policy BDP1 Sustainable Development Principles which refers to the ability of the local and strategic road networks to accommodate additional traffic. When considering Policy WCS14 Amenity of the Worcestershire Waste Core Strategy (Adopted November 2012), the operation of the facility and associated transport will not have unacceptable adverse impacts.

Water Environment

- 7.10.39. A Flood Risk Assessment (2019) has been undertaken by Caulmert Ltd. in support of the planning application for the Proposed Development. The report includes a drainage strategy for how the Site will collect, treat, and discharge surface water.
- 7.10.40. NPPF (2019) Section 14 Meeting the challenge of climate change, flooding and coastal change states that development should be directed away from areas at highest risk. The Site is located within Flood Zone 1 (low probability of flooding) according to Environment Agency Flood Mapping. The Proposed Development is classified as 'Water-compatible development' according to NPPF (Table 2: Flood risk vulnerability classification).
- 7.10.41. Other flood risks considered in the FRA include existing drainage, groundwater, overland flow and surface runoff do not pose a significant flood risk to the Proposed Development. In addition, it remains a low risk against future flooding when taking account of climate change.
- 7.10.42. The Restoration Scheme will feature surface water ditches and a pond will provide satisfactory drainage and flood control. A flood control basin and pond will be located in the north-western periphery of the Site which will link to the associated drainage ditches along the edge of the field boundaries.
- 7.10.43. The above will comply with current planning national planning policy, Policy BDP1 Sustainable Development Principles, Policy BDP22 Climate Change and Policy BDP23 Water Management of the Bromsgrove District Plan 2011-2030 (Adopted January 2017) and Policy WCS10 Flood risk and water resources and Policy WCS14 Amenity of the Worcestershire Waste Core Strategy (Adopted November 2012). Also relevant is Draft Policy MLP27 Water Quality and Quantity and Draft Policy MLP28 Flooding of the Emerging Minerals Local Plan.

8. CUMULATIVE EFFECTS

8.1. INTRODUCTION

- 8.1.1. The Scoping Opinion (September 2018) referred to potential cumulative effects resulting from existing and proposed quarrying and landfill operations situated off Sandy Lane (A491) and Money Lane (B4551) in relation to noise, lighting and visual impacts on particular receptors.
- 8.1.2. Cumulative effects have been considered where applicable in the Technical Reports and are summarised in this Section.

8.2. SUMMARY OF CUMULATIVE EFFECTS

Air Quality Assessment (2019)

- 8.2.1. The report undertakes an assessment of cumulative impacts in line with current IAQM Mineral Dust guidance and concludes:
- The phased nature of the operations means that only a small area of the whole quarry site will be active at any one time, meaning that cumulative impacts from the quarry will be minimised;
 - As previously discussed, the Site is close to other mineral sites. Much of these other sites are currently inactive, and have either been restored, are about to undergo restoration, or do not currently have planning permission for extraction;
 - The Site in which active mineral (sand) extraction is taking place, Wildmoor quarry, is located around 1.3km to the west of the proposed development. Adverse dust impacts from sand quarries are considered to be highly unlikely at distances over a few hundred metres; the IAQM Mineral Dust guidance states that "From the experience of the Working Group, adverse dust impacts from sand and gravel sites are uncommon beyond 250m"; and
 - It is therefore considered that cumulative effects from other nearby sources are unlikely to lead to a significant impact on the sensitive receptors. (page 31)

Health Impact Assessment (2019)

- 8.2.2. The HIA report undertakes an assessment of cumulative impacts in line with NPPF (2019) and considers light, noise and visual impacts. Aspects relating to air quality are considered in further detail in the Air Quality Assessment (2019) noted previously.
- 8.2.3. The HIA states the following:
- The phased nature of the operations means that only a small area of the whole quarry site will be active at any one time. Light and noise trespass are deemed to be of a low risk; with mitigation measures in place to help attenuate the potential for disturbances beyond the Site perimeter. Visual impacts are considered minimal due to the progressive restoration scheme; which could also help mitigate the potential for emotional health and wellbeing to be negatively impacted. Subsequently, it is considered that any cumulative impacts as a result of the quarrying operations will therefore be minimised;

- The Proposed Development is in close proximity to other mineral extraction and waste management sites. It is therefore important to assess the potential for cumulative impacts to be experienced when looking at the Proposed Development, Pinches Quarry as a whole, in conjunction with other industrial activity in the surrounding area;
- Many of these surrounding mineral and waste management developments have either been restored; are due to undergo restoration; do not currently have planning permission for extraction; or are currently inactive;
- Furthermore, in regards to air quality, adverse dust impacts from sand quarries are considered highly unlikely at distances over a few hundred metres ...; and
- In light of all this information, and taking the distances between Pinches Quarry and similar industries into account, it is considered that cumulative effects from other nearby sources are likely to have a negligible effect on the sensitive receptors; particularly in regards to dust, light, noise and visual impacts.

Landscape and Visual Impact Assessment (2019)

- 8.2.4. Existing and proposed quarrying and landfill operations are situated off Sandy Lane (A491) and Money Lane (B4551).
- 8.2.5. This primarily concerns two clusters of either restored or inactive quarries to the north-west and west which are within long range from the Site. Consequently, they are separated by a combination of the rolling topography and vegetation from the Site. With reference to the representative views used for this LVIA, the potential cumulative sites do not occupy the same amenity in combination. There will be no **adverse** landscape or visual cumulative effects resulting from the Proposed Development.

9. SUSTAINABILITY STATEMENT

9.1. INTRODUCTION

9.1.1. This Section sets out the sustainability statement in relation to the Proposed Development.

9.2. PLANNING POLICY

9.2.1. The NPPF (2019) states that planning system has three overarching and interdependent objectives, namely economic, social and environmental (paragraph 8) which are key to achieving sustainable development (Section 2). Other topics also emphasise this importance sustainability with regards to minerals, sustainable transport and good design.

9.2.2. WCC and Bromsgrove District Council have key sustainable policies and reaffirm the above. Of note are the following:

- Waste Core Strategy for Worcestershire, Adopted Waste Local Plan 2012-2017 (Adopted November 2012): Policy WCS1 Presumption in favour of sustainable development and Policy WCS11 Sustainable design and operation of facilities; and
- Bromsgrove District Plan 2011-2030 (Adopted January 2017): Policy BDP1 Sustainable Development Principles, Policy BDP13 New Employment Development and Policy BDP16 Sustainable Transport.

9.2.3. Sustainable development is reflected through the Emerging Minerals Local Plan with regards to Draft Policy MLP1 Strategic Location of Development.

9.3. THE PROPOSED DEVELOPMENT

9.3.1. Sustainable development principles have been a key consideration in the design process.

9.3.2. The Site has been previously put forward as part of the Emerging Minerals Local Plan and forms part of a wider area of proven mineral resource. This has been established at strategic and local level. The former with regards to Draft Policy MLP1 Strategic Location of Development of the Emerging Minerals Local Plan. The Site is located within Resource area 3/7 Clent to Lydiate Ash which is identified as a 'Key' resource and has an average resource depth of 60.4m.

9.3.3. Based upon historic knowledge of Pinches 1 and 2 Quarries and more recently the experience of the mineral reserve in Pinches 3 Quarry, the estimate of the mineral resource has been established. This is further endorsed by the borehole data provided in the Appendix TR4: Environmental Setting and Site Design (2019) (ES Volume 2) (see Appendix ESSD4).

9.3.4. The Site has previously been put forward as suitable for mineral extraction during the evolving Emerging Minerals Local Plan. Consultation has been held with the local community and stakeholders as part of the iterative design process.

9.3.5. The Site is close to existing markets for minerals in the county and West Midlands area. In the immediate vicinity, it is situated near a good highway network with respect to the A491 (Sandy Lane). This is of importance with

- regards to the operation of the Site and the transportation of extracted minerals/importation of inert waste material as part of progressive restoration but also in regards to potential employees.
- 9.3.6. The Proposed Development will use existing areas of hardstanding previously used in relation to the former Pinches 3 Quarry. It will upgrade or replace existing buildings to provide temporary facilities linked to the duration of extraction, infilling and restoration. It will use an existing Site access onto Wildmoor Lane and in internal access track which has already been established.
- 9.3.7. Consideration has been given to habitat enhancements as part of the design process during the operation life of the Site and following restoration. Mitigation measures will include screen bunds sited along the northern edge of the stockyard (3m high) and along the eastern/north-eastern Site boundary (4m high), constructed from soil/overburden stripped from future working areas. They will be sparsely seeded with a 100% native species acid grassland mix. In addition, slopes will be grass seeded on the southern edge of Phase 1.
- 9.3.8. The Restoration Scheme will restore the Site primarily to agricultural fields and a productive afteruse and will be suitable in terms of landscape character and setting. This will also provide opportunities to enhance existing habitats on site which currently comprises rough grazing and scrub.
- 9.3.9. The Site is located in Flood Zone 1 (low probability of flooding). A flood control basin and pond together with associated wetland areas will be located in the north-western periphery of the Site. The pond will link to the drainage ditches along the edge of the field boundaries. Small tracts of woodland (native species broadleaf woodland) will be incorporated.
- 9.3.10. The Technical Reports undertaken as part of the ES have independently assessed the Proposed Development. They have not identified specific levels of concern (e.g. emissions) to advise against the granting of planning permission. Where issues have been raised then good practices can be established for example, in relation noise and the control of dust.
- 9.3.11. The design has considered constraints and incorporated opportunities for sustainable development through the design of the Quarry Development Scheme, the operation of the Site for mineral extraction and subsequently, the restoration of the Site. In conclusion, the Proposed Development has the potential to contribute to sustainability aims of planning policy at a national and local level.

DRAWING LIST

DRAWING NO.	TITLE
Supporting Drawings	
Drawing PN1079-D15v1	The Site Location Plan (December 2019)
Drawing PN1079-D16v2	The Site Boundary and Area Under Control of the Applicant (December 2019)
Drawing PN1079-D17v1	Topographic Site Survey (December 2019)
Drawing PN1079-D14v3	Stockyard Arrangement and General Layout (December 2019)
Quarry Development Scheme	
Drawing PN1079-D11v3 Sheet 1 of 8	Stage 1 Screen Bund and Site Preparation (October 2019)
Drawing PN1079-D11v3 Sheet 2 of 8	Stage 2 Development of Phase 1 Extraction and Preliminary Seeding of Southern Extraction Slope (October 2019)
Drawing PN1079-D11v3 Sheet 3 of 8	Stage 3 Development of Phase 2 Extraction and Seeding of Southern Extraction Slope (October 2019)
Drawing PN1079-D11v3 Sheet 4 of 8	Stage 4 Development of Phase 2A Extraction Including Preparation for Phase 3 by Soil Stripping (October 2019)
Drawing PN1079-D11v3 Sheet 5 of 8	Stage 5 Development of Phase 3 Extraction and Commencement of Infilling the Southern Sector (October 2019)
Drawing PN1079-D11v3 Sheet 6 of 8	Stage 6 Completion of Phase 3 Extraction and Infilling for Restoration of Southern Sector (October 2019)
Drawing PN1079-D11v3 Sheet 7 of 8	Stage 7 Continuation of Infilling for Restoration of Southern Sector (October 2019)
Drawing PN1079-D11v3 Sheet 8 of 8	Stage 8 Completion of Restoration in Southern Sector and Infilling to Complete Northern Sector (October 2019)
Restoration Scheme	
Drawing PN1079-D12v3	Restoration Masterplan (October 2019)
Drawing PN1079-D13v2	Illustrative Restoration Cross Sections (November 2019)

APPENDIX P1

Relevant Site Planning Consents

APPENDIX P2

Scoping Opinion (reference 18/000040/SCO), Worcestershire County Council, 6 September 2018

APPENDIX P3

Statement of Operator Interest (NRS Group)

APPENDIX P4

Table 4A: Summary of Consultee Responses

SUMMARY OF CONSULTEE RESPONSES (COMMENTS AND RECOMMENDATIONS ETC.)	WHERE ADDRESSED IN THE ES
Councillor Shirley Webb (Woodvale Division)	
The current location of the entrance and exit to the site, along with extra traffic onto busy M5 (junction 4).	ES Volume 1: Section 6 (Technical Reports Summary) and ES Volume 2: Transport Statement (2018) (Appendix TR12)
Bromsgrove District Council, (Emily Farmer, Planning Officer)	
The Site is within Green Belt. The Local Plan has no other constraints on the site. Local Planning Authority has no further comments.	Green Belt policy is addressed in Section 7 (Planning Policy Context) and Section 8 (Planning Assessment)
Catshill and North Marlbrook Parish Council, (Jim Quinn, Assistant Clerk)	
Traffic movements along Wildmoor Lane and the road network within the Parish Council's area, south of the Site.	ES Volume 1: Section 6 (Technical Reports Summary) and ES Volume 2: Transport Statement (2018) (Appendix TR12)
Bournheath Parish Council	
<ul style="list-style-type: none"> Environmental impact concerns. Main issues relate to lorry movements (i.e. volumes, frequency, time of day/night, impact on local roads/surfaces). Increased traffic, dust and gases. Concerns regarding potential for the Site to be used for landfill in future. Request for a Public Meeting, with an offer of Bournheath Community Centre. 	<ul style="list-style-type: none"> Environmental impacts are assessed in the Technical Reports summarised in Section 6 (Technical Reports Summary) and provided in full in ES Volume 2. A public consultation event was held on 22 November 2019 at Bournheath Community Centre
Belbroughton and Fairfield Parish Council, (John Farrell, Clerk)	
<p>Consultee submitted a response from the Wildmoor Residents Association (WRA) (Syd Danks, Chairman), dated 18 July 2018. They are broadly in agreement the comments, summarised as follows.</p> <ul style="list-style-type: none"> Green Belt – the site is an important (prominent) topographical feature next to Junction 4, LVA photographs (January) do not show Green Belt setting in spring/summer. Concern over the existing state of the site (e.g. tipping, sand and spoil heaps), query regarding the 3m bunds. Concerns also raised re: gaseous emissions in relation to Pinches Phases 1 & 2 and subsequent monitoring. Noise - concern regarding nearby houses along Top Road, Third Road and Middle Road. Concern with respect to noise levels from mobile plant. In addition, noise from the site being used by motorbikes at weekends. Traffic – concern over estimated frequency of 5 vehicles/hour (further information required), congestion of the A491, traffic from M5 (Junction 4). Traffic and Dust –regarding Pinches Phase 3 operations. WRA have contacted the WCC Enforcement Officer. Winter months/wet conditions - traffic using the site entrance causes Wildmoor Lane and the A491 to become muddy (with mud carried along the A491). Consultee comments that wheel washing is not carried out by current operator. Dust is an issue in dry conditions due to lorry movements. Further information is requested regarding sand reserves and site restoration (the Consultee notes the overfilling of Chadwich Quarry). WRA concludes that given the prominent location of the site, following Phase 3 operations, the site (Phase 4) should be restored due to neglect and not used as a sand quarry site. 	<ul style="list-style-type: none"> Green Belt policy is addressed in Section 7 (Planning Policy Context) and Section 8 (Planning Assessment) Noise: A summary of the Noise Assessment is provided in Section 6 (Technical Reports Summary) and it is included in full in ES Volume: Noise Assessment (2019) (Appendix TR10) Transport: See ES Volume 1: Section 6 (Technical Reports Summary) and ES Volume 2: Transport Statement (2018) (Appendix TR12) Traffic and Dust: See ES Volume 1: Section 6 (Technical Reports Summary) and Dust Management Plan (2019) (Appendix TR2). The Site will be restored primarily to an agricultural after use illustrated by the restoration scheme, Drawing PN1079-D12v3: Restoration Masterplan (October 2019).
Wildmoor Residents Association (WRA) (Syd Danks, Chairman)	
Wildmoor Residents Association (WRA) (Syd Danks, Chairman), submitted additional information including photographs re: Green Belt to WCC.	Green Belt policy is addressed in Section 7 (Planning Policy Context) and Section 8 (Planning Assessment)
Worcestershire Regulatory Services (Noise and Dust), Steve Williams, Senior Technical Officer (Technical Services)	
Noise Assessment and a Dust Management Plan should be submitted.	Noise: A summary of the Noise Assessment is provided in Section 6 (Technical Reports Summary) and it is included in full in ES Volume: Noise Assessment (2019) (Appendix TR10) Dust Management Plan: See ES Volume 1: Section 6 (Technical Reports Summary) and Dust Management Plan (2019) (Appendix TR2).
Worcestershire Regulatory Services (Air Quality and Contaminated Land), Steve Williams, Senior Technical Officer (Technical Services)	
Contaminated Land	Contaminated Land

SUMMARY OF CONSULTEE RESPONSES (COMMENTS AND RECOMMENDATIONS ETC.)	WHERE ADDRESSED IN THE ES
<ul style="list-style-type: none"> • Consultee is undertaking a contaminated land assessment re: Pinches landfill site and nearby residential properties. Historical gas monitoring data from Pinches 1 and 2 landfill sites has identified high levels of methane and carbon dioxide being produced. Assessment is to establish whether the nearby residential properties are at risk from ingress of landfill gas. • Further excavation and infilling from the proposals has the potential to alter the gas regime of the site/risks posed to the neighbouring residential properties. • Recommends that a contamination assessment is undertaken to determine existing conditions on site/ascertain the effects the development will have on the gas regime. The risks posed to the residential properties and other relevant receptors should be determined and appropriate mitigation measures designed where necessary. Consultee references DEFRA/EA guidance. <p>Air Quality</p> <ul style="list-style-type: none"> • Consultee comments on 5 HGV trips/hour. Taking proposed operating times of 07:00 to 18:00 weekdays and 07:00 to 14:00 Saturdays, it is predicted that trip generation of HGVs will be a maximum of 55 per day (weekdays and 35 Saturdays). • The EPUK and IAQM document (Land-Use Planning & Development Control: Planning For Air Quality) indicates that an air quality assessment should be undertaken in the case of an increase of 100 annual average daily trips (AADT) of HGV's outside of an Air Quality Management Area (AQMA) and 25 HGV AADT adjacent to an AQMA. (NB. The site is not located adjacent to an AQMA, currently there are four AQMAs declared within the Bromsgrove district (Kidderminster Road, Hagley, the A38 junction with the M42 J1 at Lickey End, and Redditch Road and Worcester Road, Bromsgrove). • Consultee requests further information re: anticipated trip generation figures and details of the likely destination of the HGVs. Noting that it would be useful if the proposed journey routes avoided the existing AQMAs where possible. 	<p>Contaminated land assessment: A series of Technical Reports have been undertaken to assess potential effects including: Environmental Setting and Site Design (2019), Hydrogeological Risk Assessment (2019), Landfill Stability Risk Assessment (SRA) (2019) and Preliminary Sources Study Report (2019).</p> <p>Summaries are provided in Section 6 (Technical Reports Summary) (ES Volume 1) and they are included in full in ES Volume 2 as follows: Appendix TR4: Environmental Setting and Site Design (2019), Appendix TR5: Hydrogeological Risk Assessment (2019), Appendix TR6: Preliminary Sources Study Report (2019).</p> <p>Air Quality</p> <p>Information to WCC regarding figures such as maximum quarry output, HGV movements and route direction. (24 July 2018)</p> <p>Air quality is considered in the Technical Reports. Summaries are provided in Section 6 (Technical Reports Summary) (ES Volume 1) and they are included in full in ES Volume 2 as follows: Appendix TR1: Air Quality Assessment (2019) and Appendix TR8: Health Impact Assessment (2019) (ECL).</p>
<p>Worcestershire Regulatory Services (Air Quality and Contaminated Land), Steve Williams, Senior Technical Officer (Technical Services)</p> <p>In a later email, the same Consultee states that a Chapter covering air quality to cover operational impacts and dust emissions is required.</p>	<p>Air quality is considered in the Technical Reports. Summaries are provided in Section 6 (Technical Reports Summary) (ES Volume 1) and they are included in full in ES Volume 2 as follows: Appendix TR1: Air Quality Assessment (2019) and Appendix TR8: Health Impact Assessment (2019) (ECL).</p> <p>Dust Management Plan: See ES Volume 1: Section 6 (Technical Reports Summary) and Dust Management Plan (2019) (Appendix TR2).</p>
<p>Worcestershire County Council, County Ecologist, Cody Levine</p> <ul style="list-style-type: none"> • The Preliminary Ecological Assessment (PEA) includes baseline surveys (April to August 2017). An application post April 2019 (i.e. surveys 2+ years) would need updating. Where the ecologist determines there is no requirement to update surveys, then a short written statement clarifying the rationale behind their professional judgement should be included (in line with Appendix One of Worcestershire County Council's Validation document and Clause 6.2.1(b.7) of BS42020:2013). • The Consultee references Table 1 in the PEA and guidance used. They also note that the methodology selected for valuing habitat does not recognise habitats identified within the Worcestershire BAP and needs to be revised accordingly. (NB. Local BAP is currently in revision. The 2010 HAPs are still applicable and the HAPs and SAPs are currently available for public consultation and available online). • Consultee references NPPF (2018) and cites the PEA. Consultee then mentions that as the restoration aim is to return the site to pasture, it is preferred that the entire site is inoculated using seeds from local acid grassland and heathland sites and managed through low density grazing. • Consultee requests that Table 1 is updated within the EIA to predict net losses and gains in habitat extent and condition due to the scheme. Also in relation to biodiversity net-gain objectives, proposed Japanese knotweed remediation, mitigation and enhancement for burrowing bees and other pollinators, specification and location of bird boxes etc. 	<p>See summary provided in Section 6 (Technical Reports Summary) (ES Volume 1) and Appendix TR3: Biodiversity (ES Volume 2) and Appendix TR9: Landscape and Visual Impact Assessment (2019).</p>

SUMMARY OF CONSULTEE RESPONSES (COMMENTS AND RECOMMENDATIONS ETC.)	WHERE ADDRESSED IN THE ES
<ul style="list-style-type: none"> • Consultee references the Worcestershire Habitat Inventory, priorities of the Wyre Forest BDA (although the site is outwith the Biodiversity Delivery Area's boundaries) and the habitat toolkits cited in the PEA. • An outline of the aftercare management could be provided in a Landscape and Ecological Management Plan (or similar) and provide information on habitats, target condition and timeframes. At a later stage (if consented) detailed management plans would be submitted. However, Consultee highlights that early consideration of the indicators/measures of habitat creation success and species mitigation/enhancement success and an outline of these measures within the application would be welcomed. (e.g. a concern in using natural regeneration to create unimproved grasslands is the discovery that there is insufficient remnant soil seed bank to regenerate an unimproved grassland, and that similar habitats are too far away to allow dispersal naturally). 	
Worcestershire County Council, County Landscape Officer, (Adam Mindykowski, Acting Landscape Adviser) (NB: includes Archaeological matters)	
<ul style="list-style-type: none"> • Acknowledges the LVA and that the LVIA should provide further information re: mitigation options. The Consultee notes the topography of the site (i.e. part elevated). Bunds are a functional option for screening during working phase. Also during early phase of restoration, boundary features could be incorporated and contribute towards visual screening. This could be investigated in an LVIA and LEMP. • Cross references the County Ecologist (Cody Levine) re: support the promotion of acid grassland/areas of tree planting which is appropriate in terms of landscape character. • Mentions the historic environment and highlights that the NPPF (2018) cites undesignated historic assets. Further information is required re: historic assets. Archaeological potential and mitigation can be addressed as a condition of permission. However, the Consultee recommends pre-application field investigations should be implemented to establish a site-specific baseline for further consideration. 	LVIA: See summary provided in Section 6 (Technical Reports Summary) (ES Volume 1) and Appendix TR9: Landscape and Visual Impact Assessment (2019) Cultural heritage: See summary provided in Section 6 (Technical Reports Summary) (ES Volume 1) and Appendix TR7: Historic Environment Desk-based Assessment (2019)
Worcestershire Wildlife Trust, (Steve Bloomfield, Senior Conservation Officer – Planning)	
<ul style="list-style-type: none"> • The ES needs to confirm the recommendations set out in the preliminary work/further information, regarding balance of habitat losses and gains, timing of works to avoid harm (in relation to the phasing of development etc.), recommended badger surveys and confirmation of mitigation and restoration proposals. • Further invertebrate surveys (to confirm species and scale of populations of the solitary bees and wasps and potentially associated species) are required. Due to habitat mosaic on site, there is potential for these to be of more than site importance/a more significant factor than PEA suggests. The proposed mitigation for these species may also need to be refined. Recommends that an invertebrate specialist completes a more detailed survey. 	See summary provided in Section 6 (Technical Reports Summary) (ES Volume 1) and Appendix TR3: Biodiversity (ES Volume 2)
Natural England, (Yana Burlachka, Land Use Planning Adviser, Planning for a Better Environment - West Midlands Team)	
Full set of environmental information re: proposal. Annex A provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) re: General Principles etc.	Environmental impacts are assessed where appropriate in the Technical Reports which are summarised in ES Volume 1 and provided in full in ES Volume 2.
Historic England, West Midlands Office, (Nicholas Molyneux, Principal Inspector of Historic Buildings and Areas)	
<ul style="list-style-type: none"> • References potential impact upon designated heritage assets and their settings. Cites NPPF and mentions Chadwick Manor - Grade II* Building (LEN: 1348486). • The ES should consider the potential impacts on non-designated features of historic, architectural, archaeological or artistic interest and cites Historic Environment Record (HER). • Recommends involvement of the Conservation Officer (Bromsgrove Council) and the archaeological staff (Worcestershire County Council). • Consultee states that it is important that the assessment is designed to ensure that all impacts are fully understood and that section drawings and photomontages are useful. • The assessment needs to take account of the potential impacts which associated activities (such as construction, servicing and maintenance, and associated traffic) might have upon perceptions, understanding and appreciation of the heritage assets in the area. • The assessment should also consider, where appropriate, the likelihood of alterations to drainage patterns that might lead to in situ decomposition or destruction of below ground archaeological remains and deposits, and can also lead to subsidence of buildings and monuments. 	Cultural heritage: See summary provided in Section 6 (Technical Reports Summary) (ES Volume 1) and Appendix TR7: Historic Environment Desk-based Assessment (2019)

SUMMARY OF CONSULTEE RESPONSES (COMMENTS AND RECOMMENDATIONS ETC.)	WHERE ADDRESSED IN THE ES
<p>CPRE Worcestershire branch, (Dr Peter King, Chairman)</p> <ul style="list-style-type: none"> • Consultee states that albeit formally an objection, matters should be alleviated by appropriate conditions and contributions. • Main issue is probably traffic (e.g. Wildmoor Lane is a narrow road, high volume of traffic and congestion on the A491, motorway junction) • Mentions works done by Highways Agency to the Lydiate Ash junction but still problems at peak times re: traffic backing up and suggests further investigation by WCC Highways Department. Consultee makes some suggestions including contribution from developers towards road improvements/changes. Also limit the times when truck movements would be permissible. • Does not oppose the principle of the application at a strategic level, given that Phase 3 and 4 form part of a hill, it would be sensible to quarry the whole hill (rather than leaving part of it fossilised). • Cites emerging minerals plan (i.e. dearth of sand and gravel resources in the north of the county) and mentions that CPRE do not agree with a site at Wolverley Road (Cookley and Wolverley). Suggestion that if Pinches goes ahead then Wolverley Road should be refused. 	<p>Transport: See ES Volume 1: Section 6 (Technical Reports Summary) and ES Volume 2: Transport Statement (2018) (Appendix TR12)</p>
<p>Highways England, (Patricia Dray, Asset Manager, Operations Directorate)</p> <ul style="list-style-type: none"> • The M5 (Junction 4) and proximity of Phases 1 and 2 are directly adjacent to the M5 northbound off-slip/circulatory carriageway. • References the Transport (Traffic) Assessment as required by Department for Transport (circular 02/2013) and is welcomed by the Consultee. • Consultee has undertaken a high level review of the proposed trip generation and notes that the 5 HGV trips/hour stated to be robust and suitable for further assessment. Consideration should also be given to potential movement of staff, visitor and any other traffic as part of the overall trip generation exercise. Consultee recommends that trip distribution and assessment includes M5 (Junction 4). The applicant should undertake junction impact assessments at the Sandy Lane/Wildmoor Lane junction as a minimum, as any operational issues here could result in implications for M5 (Junction 4). • Given the proximity of the M5 motorway, Consultee suggests that a Geotechnical Ground Stability Assessment and Drainage Strategy are required. The former should include a Ground Investigation Report (GIR) and Preliminary Sources Study Report (PSSR). • Also a Construction Environmental Management Plan (CEMP) should be undertaken in support of a formal planning application/or as a condition of consent. The CEMP should cover both operational and restoration phases of the development including the bund/drainage. The principals of which at least need to be confirmed at the planning application stage and considered further by the applicant as part of the environmental assessments. 	<p>Transport: See ES Volume 1: Section 6 (Technical Reports Summary) and ES Volume 2: Transport Statement (2018) (Appendix TR12)</p>
<p>Worcestershire County Council, County Highways, Transport Planning Unit, (Stephen Hawley, Development Control Engineer)</p> <ul style="list-style-type: none"> • Consultee references the 5 HGVs/hour. Queries whether this would be a two way average over the working day or just an out bound movement at peak. Also, the 650,000m² of material to be exported, then import fill will result in a significant number of HGV movements. • A transport assessment should analyse the implications on the highway network and mitigate as needed. The scope of the transport assessment must be agreed with WCC and Highways England. • As from 14 June 2018, the Highways Design Guide has been replaced with the Streetscape Design Guide (updated on 31 July 2018). 	<p>Transport: See ES Volume 1: Section 6 (Technical Reports Summary) and ES Volume 2: Transport Statement (2018) (Appendix TR12)</p>
<p>Environment Agency, (West Midlands Area, Carl Cording, Planning Specialist)</p> <p>Controlled Waters</p> <ul style="list-style-type: none"> • Kidderminster Formation and Wildmoor Sandstone are Principal Aquifers. • Local Council should be contacted to ensure that there are no private water supplies within the near vicinity of the site. 	<p>A series of Technical Reports have been undertaken to assess potential effects including: Environmental Setting and Site Design (2019), Hydrogeological Risk Assessment (2019) and Preliminary Sources Study Report (2019).</p>

SUMMARY OF CONSULTEE RESPONSES (COMMENTS AND RECOMMENDATIONS ETC.)	WHERE ADDRESSED IN THE ES
<ul style="list-style-type: none"> • The site lies within Source Protection Zone 3 of a public water supply borehole. The abstraction which is associated with this SPZ is c.1.2km south-west of the site. The Consultee highlights strategic public drinking water supply and that the local site setting is highly sensitive. Impact from quarrying activities should be considered from a water resources perspective, water quality reasons and in the context of the Water Framework Directive. The proposed mineral extraction presents a risk to groundwater. • Any dewatering activities from pumping within the groundwater table must consider impacts upon the water environment. The Consultee mentions re: site restoration, that landfilling with polluting materials can have a detrimental effect on groundwater quality. Important strategic groundwater resources used for public drinking water should be protected. Consultee expects a comprehensive hydrogeological assessment within the important Principal Aquifer of the Sherwood Sandstone. • Consultee does not agree with Section 1.4.42 (Water/Hydrology) of the Request for Scoping Opinion and states that the applicant should demonstrate that controlled waters are not at risk. • Detailed consideration of existing landfills to the south-east of the site (in terms of contamination, especially in relation to leachate and gas regimes) will need to be carried out. Pollution prevention needs to be considered in relation to the stockyard/machine yard (including fuel store), in order that no risk is posed to controlled waters. • Water quality, Water Resources and Land Contamination assessment is required within an EIA. The EA's Conceptual Model, Environmental Setting and Installation Design (ESID) Report is referenced. • Landfilling activity for the site restoration will require an Environmental Permit and will need to meet the criteria for inert landfills in the Landfill Regulations (Environmental Permitting Regulations: Inert Waste Guidance). Details will be determined following the planning application. Consultee states that this proposal will probably have to go through Waste Management Licensing and the Planning regime together. Therefore, there is a need to make sure that these regimes work in tandem, as planning permission should not be granted if a Waste Management Licence cannot also be granted. The Consultee notes that the applicant will have to demonstrate that this activity does not represent a risk to the environment and controlled waters in particular. Consultee cites Chapter 6 on 'Landfill location': Regulatory Guidance Series, No LFD 1. Understanding the Landfill Directive. March 2008. Through the planning regime, the applicant should use the same information to demonstrate that controlled waters are not at risk using a risk based approach. This might include a qualitative or quantitative assessment using the sourcepathway- receptor methodology and an appropriate mitigation strategy can be developed from this. • The high risk nature of the site means that all possible safeguards need to be employed (i.e. hazardous waste), risks from likely contaminants associated with the proposed inert waste types, accidental deposit of hazardous or non-hazardous wastes, risk from pollution arising during the site operation (e.g. fuel spills and runoff to surface water). The site operator should demonstrate that the safeguards and their continuous management will reduce the environmental risk to low status. • The following general points are noted by the Consultee: - A leachate collection and sealing system is not required for inert waste sites, but the site should have a geological basal and side liner which is a requirement for the Landfill Regulations. - An engineered cap is not required for inert waste - A gas monitoring system will be required within the waste mass. External to the site, gas and groundwater monitoring will be required (proposed scheme including location and depths of monitoring boreholes to be confirmed). • 'Duty of care' should be applied to all materials before they are brought to site i.e. by chemical sampling at the production site to demonstrate that these materials meet the Waste Acceptance Criteria (WAC) for inert landfills. Consultee states that tests on materials after they have arrived at the site is not acceptable. Permits will also be needed, depending on whether there is intention to dewater, undertake a discharge or carry out mineral washing. 	<p>Summaries are provided in Section 6 (Technical Reports Summary) (ES Volume 1) and they are included in full in ES Volume 2 as follows: Appendix TR4: Environmental Setting and Site Design (2019), Appendix TR5: Hydrogeological Risk Assessment (2019), Appendix TR6: Preliminary Sources Study Report (2019) and Appendix TR13: Flood Risk Assessment (2019).</p>
North Worcestershire Water Management, (Fiona McIntosh, Senior Water Management Officer)	
<ul style="list-style-type: none"> • The site is in Flood Zone 1 (low risk of fluvial flooding). Aside from an apparent flow route along the existing track bordering the site, there is no susceptibility to surface water flooding. • No reports of flooding in the area, and no details of and land drainage assets within the site. However, the Consultee states that it is important to note that their records may not be complete. • The site itself drains into the Battlefield Brook catchment, and forms part of the total catchment (zone 3) of a source protection zone. Works and restoration should not impact negatively upon groundwater in the area. 	<p>A series of Technical Reports have been undertaken. Summaries are provided in Section 6 (Technical Reports Summary) (ES Volume 1) and they are included in full in ES Volume 2 as follows: Appendix TR4: Environmental Setting and Site Design (2019), Appendix TR5: Hydrogeological Risk Assessment (2019), Appendix TR6: Preliminary Sources Study Report (2019) and Appendix TR13: Flood Risk Assessment (2019).</p>

SUMMARY OF CONSULTEE RESPONSES (COMMENTS AND RECOMMENDATIONS ETC.)	WHERE ADDRESSED IN THE ES
<ul style="list-style-type: none"> • Drainage or groundwater levels will need to be addressed along with a full flood risk assessment and drainage strategy for the site. This should also include a hydrological and hydro-geological study to assess the impact of the proposed sand and gravel extraction and the subsequent restoration of the site, both in terms of the risk to the site itself and the wider area. • An existing and proposed topographic survey will be required to assess any changes to run-off patterns from the site. The Consultee expects that the report should include a method statement to ensure no increase in risk of pollution to ground water or surface water bodies. • Site Restoration – the Consultee welcomes the implementation of SuDS. 	
Severn Trent Water Limited, (Asset Protection Team)	
<ul style="list-style-type: none"> • The proposal will have minimal impact on the public sewerage system. No objection to the proposals and they do not require a drainage condition to be applied. • The site is within the groundwater catchment (SPZ3) of the STW Wildmoor source and is 1.5km up hydraulic gradient. Potential for large scale extraction and infill could have an impact on the water quality and/or yield of the groundwater source. • A EIA should include a detailed assessment of the risk of the proposed works on the principal aquifer below the site, especially where the extraction involves dewatering or extracting material below the water table. 	As above.
Health and Safety Executive, (Placeholder data)	
<ul style="list-style-type: none"> • HSE's Advice: Do Not Advise Against, consequently, HSE does not advise, on safety grounds, against the granting of planning permission in this case. (NB. Consultee bold text) • Breakdown: Workplaces DAA (all categories = No). Pipelines (7004_1275 Cadent Gas Ltd). The Consultee states as the proposals are within the Consultation Distance of a major hazard pipeline, WCC should consider contacting the pipeline operator before deciding the case. 	N/A
Western Power Distribution, (WPD Map Response Team)	
Includes a copy of a plan showing Western Power Distribution (WPD) Electricity/WPD Surf Telecom apparatus in the vicinity. Consultee highlights HSE guidance.	N/A
Cadent Gas, (Nick Pickstock, Network Engineer)	
<ul style="list-style-type: none"> • Consultee provides a Drawing which indicates the approximate location of the WM1227 Cadent Gas High Pressure Pipeline. • The Institute of Gas Engineers Standards (IGE/TD/1) states that no habitable buildings should be constructed within 7m Building Proximity Distance of the proven pipeline position and with an approximate standard easement width of 12.2m. Following which, the Consultee cites guidance from the HSE which may require a land use planning document (PADHI). Any road crossings or parking areas over the pipeline will need protection to National Grid specification and at the developers cost. Response includes Code of Practice. 	N/A
Public Health England, (Dr Manjit Singh, Environmental Public Health Scientist and Dr Toby Smith Specialist Environmental Public Health Scientist)	
<ul style="list-style-type: none"> • The EIA should contain a dedicated section considering Health. It should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should be highlighted. A generic guide is provided by the Consultee (Appendix: PHE recommendations regarding the scoping document). 	A summary of the Health Impact Assessment is included in Section 6 (Technical Reports Summary) (ES Volume 1) and provided in full in Appendix TR8: Health Impact Assessment (2019) (ES Volume 2)
Worcestershire County Council (County Health Department), (Deborah Tillsley, Public Health Practitioner)	
<ul style="list-style-type: none"> • Health and wellbeing of employees working on the development, residents in the area and wider impacts on traffic and air quality should be considered. • Alongside the ES, a separate health impact assessment using the WCC HIA screening tool is carried out. Based on the results of the screening, a full health impact assessment would be undertaken. 	A series of Technical Reports have been undertaken. Summaries are provided in Section 6 (Technical Reports Summary) (ES Volume 1) and they are included in full in ES Volume 2 as follows: Appendix TR1: Air Quality Assessment (2019), Appendix TR2: Dust Management Plan (2019), Appendix TR8: Health Impact Assessment (2019), Appendix TR9: Landscape and Visual Impact Assessment (2019), Appendix TR10: Noise Assessment (2019) and Appendix TR13: Transport Statement (2018).
Herefordshire and Worcestershire Earth Heritage Trust, (Allison Tinsley, Office Administrator)	
No comments.	N/A

APPENDIX P5

Table 5A: Glossary

WORD OR PHRASE	DEFINITION
the Applicant	BJ Timmins
the Agent	Enviroarm Ltd.
Scoping Opinion (September 2018)	Reference 18/000040/SCO, The Town and Country Planning (Environmental Impact Assessment) Regulations 2017, Scoping Opinion, Proposed extraction of approximately 1 million tonnes of a sand and subsequent restoration to original levels by infilling of approximately 650,000 cubic metres of inert materials (soils) on land at Pinches Quarry (Phase 4), Wildmoor Lane, Wildmoor, Near Bromsgrove, Worcestershire, Worcestershire County Council, 6 September 2018
the Site	Planning Application boundary identified on Drawing PN1079-D15v1: The Site Location Plan (December 2019).
The Proposed Development	The proposed extraction of approximately 1 million tonnes of sand and gravel, with progressive restoration by way of importation of inert waste material, returning the Site primarily to agricultural use.
Quarry Development Scheme	Detailed process of mineral extraction (Phases) and operational sequence (Stages) as represented by Drawings PN1079-D11v3 Sheet 1 to 8 (October 2019).
Restoration Scheme	Illustrated by Drawing PN1079-D12v3: Restoration Masterplan (October 2019) and Drawing PN1079-D13v2: Illustrative Restoration Cross Sections (November 2019).
Stages	Operational sequence which is divided into eight separate Stages.
Phases	Process of mineral extraction which is divided into three separate Phases.
Northern Sector	Phase 3
Southern Sector	Phases 1 to 2A

Table 5B: Abbreviations

ABBREVIATION	WORD OR PHRASE
ALC	Agricultural Land Classification
AQMA	Air Quality Management Area
BAP	Biodiversity Action Plan
B&A	Bright & Associates
BMV	Best and Most Versatile
BS	British Standards
BSI	British Standards Institution
CEMP	Construction Environmental Management Plan
CERC	Cambridge Environmental Research Consultants Ltd.
CIEEM	Chartered Institute of Ecology and Environmental Management
CPA	County Planning Authority
CQA	Construction Quality Assurance
CRTN	Calculation of Road Traffic Noise
dB	decibels
DEFRA	Department for Environment, Food and Rural Affairs
EIA	Environmental Impact Assessment
EPUK	Environmental Protection UK
ES	Environmental Statement
FRA	Flood Risk Assessment
GCN	Great Crested Newt
GI	Green Infrastructure
ha	hectares

HGV	Heavy Good Vehicles
HIA	Health Impact Assessment
HRA	Hydrogeological Risk Assessment
hrs	hours
IAQM	Institute of Air Quality Management
JNCC	Joint Nature Conservation Committee
km	kilometre
LVA	Landscape and Visual Appraisal
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Sites
m	metre
m ³	cubic metres
m/s	metres per second
mAOD	Metres Above Ordnance Datum
MLP	Mineral Local Plan
MRV	Minimum Reporting Value
N/A	Not applicable
NPPF	National Planning Policy Framework
PPG	Planning Policy Guidance
SA	Sustainability Appraisal
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SRA	Stability Risk Assessment
TPA	Tonnes Per Annum
TS	Transport Statement
UK	United Kingdom
WBRC	Worcestershire Biological Records Centre
WCC	Worcestershire County Council
WHER	Worcestershire Historic Environment Record
WRS	Worcestershire Regulatory Services

Table 5C: Reference List

TITLE, AUTHOR
Publications (alphabetical order of author)
Technical Reports (included in full in ES Volume 2)
Benchmark Archaeology, <i>Land at Pinches Quarry (Phase 4), Wildmoor Lane, Wildmoor, Bromsgrove</i> , October 2019
Bright & Associates, <i>Landscape and Visual Impact Assessment, Pinches 4 Quarry</i> , December 2019
Bromsgrove District Council, <i>Green Belt Purposes Part One Assessment, Strategic Assessment of the Green Belt Purposes</i> , August 2019 Version
Cambridge Environmental Research Consultants Ltd., <i>Air Quality Assessment, Proposed Extension Of Quarry, Wildmoor, Bromsgrove, Final report</i> , February 2019
Caulmert Ltd., <i>Flood Risk Assessment and Drainage Strategy, Pinches Quarry Phase 4 Quarry and Landfill Development</i> , Document Reference: 4221-CAU-XX-XX-RP-C-0300.A0-C1, November 2019
ECL, <i>Dust Management Plan, Pinches 4 Quarry, Wildmoor, Bromsgrove Worcestershire</i> , ECL Ref: ECL.058.01.01/DMP, Version: Draft, March 2019
ECL, <i>Health Impact Assessment, Application for Planning Permission for the Proposed Extension for the Proposed Extension to Pinches Quarry (Phase 4) and Subsequent Restoration</i> , ECL Ref: ECL.058.01.01/HIA Issue: 1, November 2019
Eco Tech Ecological Consultancy, <i>Ecological Impact Assessment, Pinches (4) Quarry, Nr Bromsgrove</i> , December 2019
Enviroarm Ltd., <i>Environmental Setting and Site Design, Pinches 4 Quarry</i> , Ref: ESSD/P4Q/1.00/2019, June 2019
Enviroarm Ltd., <i>Hydrogeological Risk Assessment, Pinches 4 Quarry</i> , Ref: HRA/BJT/P4Q/1.00/2019, September 2019

LF Acoustics Ltd., <i>Noise Assessment, Pinches 4 Quarry</i> , March 2019
Richard Stock Soils and Agriculture, <i>Agricultural Land Classification Report On Land At Pinches 4 (desk based study)</i> , January 2018
SCP, <i>Transport Statement, Pinches 4 Quarry, Wildmoor Lane, Wildmoor, Bromsgrove</i> , DOC REF: SC/18318/TS/0, September 2018
TerraConsult, <i>Preliminary Sources Study Report, Pinches Quarry, Lydiate Ash</i> , Report No. 4758-R02 Issue 02, December 2019
General reference sources (ES Volume 1)
Bright & Associates, <i>Site Promotion as part of the Worcestershire Emerging Minerals Local Plan, Call for Sites, Pinches 4 Quarry, Wildmoor Lane, Wildmoor, Bromsgrove</i> , January 2018
Bright & Associates, <i>Request for Scoping Opinion, Pinches 4 Quarry, Wildmoor Lane, Wildmoor, Bromsgrove</i> , July 2018
British Standards Institution, <i>BSEN 1997-2: Eurocode 7: Geotechnical Design. Part 2 Ground Investigation and Testing</i> , 2007 (+corrigendum 2010)
British Standards Institution, <i>BSEN 1997-1: Eurocode 7: Geotechnical Design. Part 1: General Rules, BSI, 2004. Incorporating A1</i> , 2013
British Standards Institute, <i>Code of Practice for Noise and Vibration Control on Construction and Open Sites. Part 1: Noise. BS 5228-1+A1</i> , 2014
British Standards Institution, <i>BS5930: Code of Practice for Ground Investigations</i> , 2015
British Standards Institution, <i>BS1377: Methods of Test for Soils for Civil Engineering Purposes</i> , Published in nine parts
Bromsgrove District Council, <i>Bromsgrove District Plan 2011-2030</i> , Adopted January 2017
Chartered Institute of Ecology and Environmental Management, <i>Guidelines for Ecological Impact Assessment</i> , 2018
Collins, J., <i>Bat Surveys for Professional Ecologists</i> , Good Practice Guidelines 3rd Edition, 2016
Department of Transport, <i>Calculation of Road Traffic Noise (CRTN)</i> , 1988
Hereford and Worcester County Council, <i>The County of Hereford and Worcester Mineral Local Plan</i> , Adopted April 1997
Highways England, <i>The Design Manual for Roads and Bridges, CD 622 Managing Geotechnical Risk</i> , August 2019
Institute of Air Quality Management, <i>Guidance on the Assessment of Mineral Dust Impacts for Planning</i> , 2016
Institute of Air Quality Management, <i>Land-use Planning & Development Control: Planning for Air Quality (v1.2)</i> , 2017
Joint Nature Conservation Committee, <i>Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit</i> , 1993
Landscape Institute and Institute of Environmental Management and Assessment, <i>Guidelines for Landscape and Visual Impact Assessment (Third Edition)</i> , 2013
Landscape Institute, <i>Visual Representation of Development Proposals, Technical Guidance Note 06/19</i> , September 2019
Malvern Hills District Council, Worcester City Council, Wychavon District Council, Prepared in conjunction with Worcestershire County Council, <i>Planning for Health in South Worcestershire – Supplementary Planning Document</i> , Adopted September 2017
Ministry of Housing, Communities and Local Government, <i>National Planning Policy Framework</i> , February 2019
TerraConsult Ltd., <i>Statement of Intent, Pinches Quarry, Lydiate Ash</i> , Report 4758-R01-01, November 2019
Worcestershire County Council, <i>Waste Core Strategy for Worcestershire, Adopted Waste Local Plan 2012-2017</i> , Adopted November 2012
Worcestershire County Council, <i>Biodiversity and Mineral Sites in Worcestershire Guidance for the Sustainable Management of Biodiversity Action Plan Habitats at Worcestershire Mineral Sites, Technical Research Paper</i> , November 2013
Worcestershire County Council, <i>Statement of Community Involvement, Update</i> , 2015
Worcestershire County Council, <i>Worcestershire Biodiversity Action Plan 2018</i> , June 2019
Worcestershire County Council, <i>Worcestershire Minerals Local Plan Publication Version</i> , August 2019
Worcestershire County Council and Forestry Commission, <i>Trees and Woodland in Worcestershire: Biodiversity and Landscape Guidelines for their planting and management</i> , March 2010
Worcestershire Green Infrastructure Partnership, <i>Worcestershire Green Infrastructure Strategy 2013 – 2018</i> , 2012
Worcestershire Regulatory Services, <i>Technical Guidance Note for Planning (v.4.0)</i> , 2017
Website Resources (alphabetical order) (ES Volume 1)
MAGIC Map, https://magic.defra.gov.uk
Flood map for planning, https://flood-map-for-planning.service.gov.uk/
Government/Natural England guidance, https://www.gov.uk/guidance/great-crested-newts-surveys-and-mitigation-for-development-projects
Planning Practice Guidance, https://www.gov.uk/government/collections/planning-practice-guidance
Planning Policy Guidance (Environmental Impact Assessment), https://www.gov.uk/guidance/environmental-impact-assessment

Worcestershire County Council, Emerging Minerals Local Plan: Where we are now, <http://www.worcestershire.gov.uk>

Worcestershire County Council, Waste Core Strategy Web Tool,
<https://gis.worcestershire.gov.uk/website/WasteCoreStrategy/>

APPENDIX P6

Table 6A: EIA Regulations (Schedule 4: Information for Inclusion in Environmental Statements)

ITEM/ASPECT	WHERE ADDRESSED IN THE ES (VOLUME/SECTION)
1. A description of the development, including in particular:	
(a) a description of the location of the development	Section 2: Current Site Context (ES Volume 1)
(b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases	Section 4: The Proposed Development (ES Volume 1)
(c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used	Section 4: The Proposed Development (ES Volume 1)
(d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
2. A description of the reasonable alternatives (for example in terms of development 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 a comparison of the environmental effects.	Section 5: Alternative Working Schemes (ES Volume 1)
3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.	Section 2: Current Site Context (ES Volume 1)
4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	Technical Reports (ES Volume 2)
5. A description of the likely significant effects of the development on the environment resulting from, inter alia:	
(a) the construction and existence of the development, including, where relevant, demolition works	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
(b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
(c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
(d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters)	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)

ITEM/ASPECT	WHERE ADDRESSED IN THE ES (VOLUME/SECTION)
(e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources	Section 9: Cumulative Effects (ES Volume 1)
(f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
(g) the technologies and the substances used. The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(a) and Directive 2009/147/EC(b).	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	Technical Reports (ES Volume 2)
7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.	Section 4: The Proposed Development (ES Volume 1), Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to EU legislation such as Directive 2012/18/EU(c) of the European Parliament and of the Council or Council Directive 2009/71/Euratom(d) or UK environmental assessments may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	Section 6: Technical Reports Summary (ES Volume 1) and Technical Reports (ES Volume 2)
9. A non-technical summary of the information provided under paragraphs 1 to 8.	Non-Technical Summary (separate document)
10. A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.	Appendix P5 (ES Volume 1)

APPENDIX P7

Table 7A: Consultants Expertise and Qualifications

ISSUE	REPORT TITLE REF/DATE	CONSULTANT	RELEVANT EXPERTISE OR QUALIFICATIONS
Air Quality	Air Quality Assessment (2019)	CERC	Author(s): Catheryn Price, Senior Consultant, MSci Chemistry with Environmental Science, University of Bristol
			Reviewer(s): Sarah Strickland, Principal Consultant, MSc Applied Meteorology, University of Reading, BSc Hons Physics, University of Leeds, Member of the Institute of Physics
	Dust Management Plan (2019)	ECL	Author: Sara Jones, Senior Environmental Consultant, BSc Honours in Physical Geography and Practitioner Member of the Institute of Environmental Management and Assessment.
			Reviewer: Sarah Burley, Technical Director, BSc Honours in Chemistry and MSc in Environmental Science, Member of the Royal Society of Chemistry.
Biodiversity	Ecological Impact Assessment (2019)	ECO TECH Ecological Consultancy	Robert Mileto, BSc Ecology, MSc Conservation, MRSB – Member of the Royal Society of Biology
Contaminated Land and Ground Stability	Environmental Setting and Site Design (2019)	Enviroarm Ltd.	Andy Morris, Director, Enviroarm Ltd., BSc, MSc, CGeol (Chartered Geologist), FGS (Fellow of the Geological Society), CEnv (Chartered Environmentalist), MCIWM (Chartered Institution of Wastes Management)
	Hydrogeological Risk Assessment (2019)	Enviroarm Ltd.	
	Preliminary Sources Study Report (2019)	TerraConsult	Prepared By: Dr. Simon Ferley, Technical Director, BSc (Hons) Civil Engineering, MSc Geotechnics (Distinction), PhD Geological Controls on the Properties of Tills, CEng MICE by professional review, Fellow of the Geological Society, Designers Geotechnical Adviser (DGA) for the project.
			Checked By: Jim Waterworth
Cultural Heritage	Historic Environment Desk-based Assessment (2019)	Benchmark Archaeology	Richard Cherrington, BA Ancient History & Archaeology, PG Cert Environmental Management, PG Diploma in Practical Archaeology. Associate level member of the Chartered Institute for Archaeologists (ACIfA), Fellow of The Royal Geographical Society (FRGS), member of the Council for British Archaeology (CBA), Vernacular Architecture Group (VAG), and the British Brick Society (BBS)
Health Impacts	Health Impact Assessment (2019)	ECL	Author: Tim Heard Environmental Consultant, BSc Honours in Geography and course completion of Chartered Institute of Environmental Health – 'Understanding and Applying Rapid Health Impact Assessment'

ISSUE	REPORT TITLE REF/DATE	CONSULTANT	RELEVANT EXPERTISE OR QUALIFICATIONS
			Reviewer: Sarah Burley, Technical Director, BSc Honours in Chemistry and MSc in Environmental Science, Member of the Royal Society of Chemistry
			2nd Reviewer: Oliver Matthews, Principal Environmental Consultant, MSc in Environmental Health, Associate Member of the Institute of Acoustics and Associate Member of the Chartered Institute of Environmental Health (CIEH). Completion of the completion CIEH – 'Understanding and Applying Rapid Health Impact Assessment'
Landscape and Visual	Landscape and Visual Impact Assessment (2019)	Bright & Associates	Rick Bright, Principal Bright & Associates, BA (Hons) Landscape Architecture, Post Graduate Diploma Landscape Architecture, Chartered Landscape Architect (Design), Member of the Landscape Institute (LI)
			Sam Croft, Landscape Architect, Bright & Associates, MSc Environmental Psychology, Post Graduate Diploma Landscape Architecture, Graduate Diploma Landscape Design
Noise	Noise Assessment (2019)	LF Acoustics Ltd.	Les Jephson, Director of LF Acoustics Ltd., BEng (Hons), MIOA (Member of the Institute of Acoustics)
Soils	Agricultural Land Classification Report (desk based study) (2018)	Richard Stock Soils and Agriculture	Richard Stock, Agricultural Consultant, BSc (Hons) Agricultural Science, MIAgrE (Field Engineering)
Transport	Transport Statement (2018)	SCP	Author(s): Sam Chapman, Senior Transport Planner, BA (Hons) Geography and Town Planning
			Reviewer(s): Mark Devenish, Associate Director, FCIHT (Fellow of the Chartered Institution of Highways and Transportation) CEng (Chartered Engineer)
Water Environment	Flood Risk Assessment (2019)	Caulmert Ltd.	Author: Steven Barber-Bailey, Associate Civil Engineer, BSc (Hons) CEng MICE
			Reviewer: Jonathan Sykes