Caulmert Limited

Engineering, Environmental & Planning Consultancy Services

Alkerton Quarry

Alkerton 2022 Limited

Environmental Permit Application

Environmental Setting & Site Design Report

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Environmental Setting & Site Design Report

TABLE OF CONTENTS

DRAWINGS

4919-CAU-XX-XX-DR-V-1800	Sensitive Receptor Plan
AL1198-D11v2 (August 2021)	Illustrative Cross Sections of Site and Revised Restoration Scheme
AL1198-D12v4 (RevA Dec 2021)	Comparison of Landforms, Site Conditions and Site Operation
AL1198-D10v8 (May 2021)	Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges

APPENDICES

Appendix 1	Planning Permission MW.0020/19 & MW.0124/21
Appendix 2	Oxfordshire County Council Pre-Application Advice Letter, ref: PRE 0088/21 (July 2021)
Appendix 3	Hydrogeological Risk Assessment ref. 4919-CAU-XX-XX-RP-O-0300
Appendix 4	Gas Risk Assessment ref. 4919-CAU-XX-XX-RP-V-0305

1.0 INTRODUCTION

1.1 Overview

1.1.1 Caulmert Limited have been appointed by Alkerton 2022 Limited (the 'operator') to prepare an Environmental Setting and Site Design Report (ESSD), as part of an environmental permit application for a waste recovery operation at Alkerton Quarry, in Alkerton, Banbury, Oxfordshire ('the site').

1.1.2 The waste recovery operations will involve the importation of inert waste materials sourced from imported inert local development projects and in-situ material available on-site to enable the satisfactory restoration of the site to re-instate the road through the site with a low-level restoration in line with a revised restoration scheme.

1.1.3 Within this ESSD report, a Conceptual Site Model (CSM) is provided which details the site-specific Source>Pathway>Receptor linkages for risk assessments within this permit application.

1.1.4 The Restoration Scheme is shown in attached drawing ref. AL1198-D10v8 (May 2021).

1.1.5 Cross-sections of the revised restoration scheme is shown in attached drawing ref. AL1198-D11v2 (August 2021).

1.2 Site Location

1.2.1 Alkerton Quarry is located at National Grid Reference SP 38665 43039 and postcode OX15 6HY. The site is accessed off the main road that runs through Alkerton with Shenington, Banbury, Oxfordshire.

1.2.2 Alkerton Quarry occupies a triangular parcel of land with access to the main road networks which border the A422 (Stratford Road) and Rattlecombe Road to the south as shown in Figure 1 below (site boundary in red).

1.2.3 The existing Alkerton Quarry covers an area of approximately 10.8 ha and is within a wider Review of Old Mineral Permissions (ROMP) area of permitted ironstone extraction, regulated under Oxfordshire County Council ref. 97/00430/CM (dated 28 January 1999), which also includes restored and active mineral operations at Hornton and Wroxton respectively. The Alkerton Quarry has been largely exhausted of ironstone mineral.

1.2.4 The northern part of the site was partially restored approximately 14 years ago and is in poor condition and requires re-working to improve restoration quality and drainage.

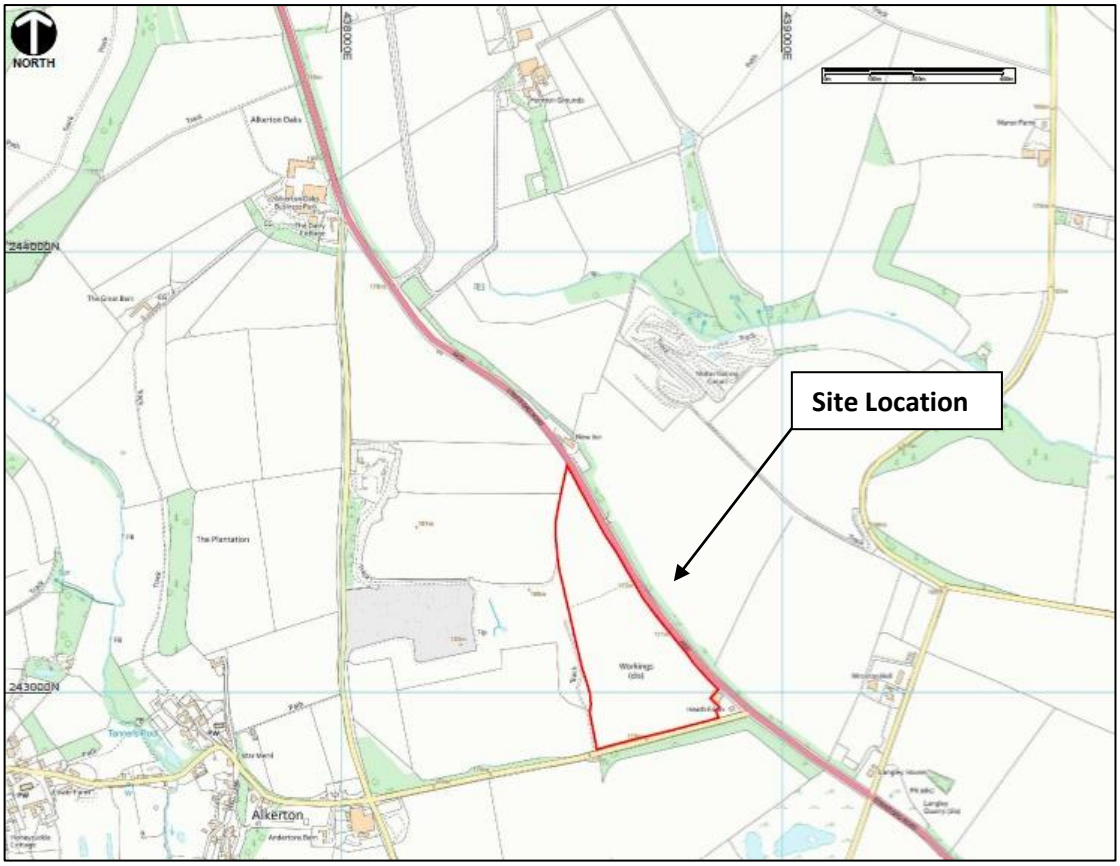


Figure 1 – Site Location (boundary in red)

1.3 Surrounding Land-Use

1.3.1 The site is set within predominantly agricultural land, with the A422 Stratford Road to the east, the access road, Rattlecombe Road, to the south and Alkerton Landfill Site (operated by SUEZ Recycling and Recovering UK Ltd) immediately to the west.

1.3.2 The village of Alkerton with Shenington is located 800m west of the site and the outskirts of Banbury are 4.7km to the east.

1.3.3 The topography of the area is shown to have elevations of between 130 and 180mAOD.

1.3.4 Further information on the surrounding land-use, with distances to sensitive receptors is presented in Section 3 of this report.

1.4 Application Context

1.4.1 The previous Planning Permission MW.0020/19 for Alkerton Quarry included a restoration scheme that restores the site to a low level with agricultural after-use, hedgerows and areas of rough grassland, scrub and natural regeneration. This permission included for the relocation of the ephemeral pond and was approved in November 2019. This scheme provided approximately 6.1 hectares of agricultural land with approximately 1.8 ha of rough grassland with perimeter scrub and native hedgerows (approx. 654m linear length). Restoration of Alkerton Quarry was due to be completed in 2019/20 under this Restoration Scheme.

However, only a section of the northern area of the site was partially restored approximately 14 years ago under previous ownership, whereby the haul road was also removed and the mineral beneath over-extracted. As a result, this has prevented the restoration scheme that was approved in MW.0020/19 from being implemented.

1.4.2 Following new ownership of Alkerton Quarry in 2021, the new operator (Alkerton 2022 Limited) seeks to restore Alkerton Quarry to re-establish the access road and complete a revised low-level restoration landform in accordance with a revised restoration scheme approved by Oxfordshire County Council. Once restored it is proposed to construct 18 holiday chalets in the northern part of the site as a form of eco-tourism, with the reinstated road providing access to the holiday chalets following restoration of the site. The southern area with be restored into a nature reserve area.

2.0 SOURCE

2.1 Historical Development

2.1.1 Mapping from 1882 indicate that Alkerton Quarry was undeveloped at the time with roads surrounding the area and the New Inn property to the north. By 1959 the site remained unchanged, where land to the east of the New Inn is shown as being quarried. 1972 OS mapping shows that quarrying operations have commenced at Alkerton Quarry and approximately 14 years ago parts of the northern section was partially restored, however requiring further restorative operations.

2.1.2 Alkerton Quarry has been served with several planning permissions and amendments between 1997 and 2019 for various revisions to the site, all of which have superseded the latter in subsequent years.

2.1.3 The previous Planning Permission MW.0020/19 (Appendix 1) included a restoration scheme that restores the site to a low level with agricultural after-use, hedgerows and areas of rough grassland, scrub and natural regeneration. This permission included for the relocation of the ephemeral pond and was approved in November 2019. This scheme provided 6.1 ha of agricultural land with rough grassland and perimeter scrub.

2.1.4 Restoration of Alkerton Quarry was due to be completed in 2019/20 under this Revised Restoration Scheme. However, only a section of the northern area of the site was partially restored approximately 14 years ago under previous ownership who had also removed the haul road and over-extracted the mineral beneath. As a result, this has prevented the restoration scheme that was approved in MW.0020/19 from being implemented.

2.1.5 Following new ownership of Alkerton Quarry in 2021, the operator (Alkerton 2022 Limited) seeks to restore Alkerton Quarry to re-establish the haul road and complete a revised low-level restored landform. Planning permission MW.0124/21 was approved on 9th November 2022 (see decision notice in Appendix 1) for the proposed modification of the approved restoration scheme through importation of inert soil material for nature conservation after-use and the erection of 18 single storey holiday lodges with associated landscaping and car parking.

2.1.6 There are no records of any pollution incidents, leaks or spills of hazardous substances in the area, or any visual evidence of contamination in the ground.

2.2 Proposed Development

2.2.1 It was identified by Principal Planning Officer (Mary Hudson) Oxfordshire County Council in their pre-application advice letter, 16th July 2021 (Appendix 2) that the revised restoration which was approved 21 November 2019 (and due to be carried out in 2020) cannot now be executed as was originally intended. The Officer stated that “it is understood that the site was last worked mid-2020, when the mineral beneath the haul road was removed, making implementation of the approved restoration scheme impossible”. Oxfordshire County Council

have stated where "operations on site have made it impossible to comply with the existing approved restoration plan, in this case, a new application for an amended restoration plan is required" for Alkerton Quarry.

2.2.2 Planning permission MW.0124/21 was approved on 9th November 2022 (see decision notice in Appendix 1) for the proposed modification of the approved restoration scheme through importation of inert soil material for nature conservation after-use and the erection of 18 single storey holiday lodges with associated landscaping and car parking.

2.2.3 As the approved restoration scheme cannot be completed and there is insufficient material available on site to restore the route of the haul road, a revised restoration scheme has been developed which incorporates the restoration of Alkerton Quarry with the reinstation of the road to a low-level restoration landform through the importation of inert soils material. Following the completion of waste importation for recovery, there will be a nature conservation after-use and holiday chalets for eco-tourism. The road will be re-established which will provide access through the site to the holiday chalets. These proposals have been submitted to Oxfordshire Country Council and were approved on 9th November 2022. The revised restoration landform ranges from c.161mAOD in the southern environs to 172.5mAOD in the northern part of the site, overall providing similar restored site levels to the approved restoration scheme. The revised restoration scheme is illustrated in Drawing AL1198-D10v5 'Concept Restoration Scheme for Nature Reserve and Holiday Chalets', which shows the extent of fill to achieve the restoration landform, existing and proposed habitats including the area assigned for a Nature Reserve and the indicative layout of the holiday chalets. The revised restoration scheme (drawing ref AL1198-D10v5) has been designed to restore the site that can now only be achieved via the importation of materials to compensate for the historic over extraction of the site. This scheme has also been provided with the reinstating of the haul road and an improved landform by reinstating levels that are similar to the low level restoration landform as permitted in the previous Restoration Scheme which facilitates a reasonable depth of soil that will also further assist in current drainage issues in the partially restored, northern part of the site.

2.2.4 The revised restoration scheme has been designed to provide benefits for biodiversity, and nature conservation after-use for the site compared to the approved Restoration Scheme. This involves a larger area of Alkerton Quarry being committed to biodiversity and nature conservation purposes and allocated with approximately 0.5ha of the southern area of the site as a Nature Reserve. The site will contribute to country biodiversity targets, in line with guidelines as published in the Landscape Character Assessments and complement the existing Balscote Quarry Local Wildlife Site to the southeast. As the site evolves, there are further opportunities and partnerships with Buckinghamshire Bird Club (British Trust for Ornithology) and the Berks, Bucks and Oxen Wildlife Trust (BBOWT).

2.2.5 It is anticipated a total of 18 holiday chalets will be designed as small-scale cabin/shepherd hut style holiday facilities located in the northern part of the site with the opportunity to link these amenities to further nature conservation uses and to offer a form of eco-tourism. In addition, public footpaths which intersect the site can also be returned to its definitive route

as opposed to the amended location which would have otherwise been required by the approved Restoration Scheme. Existing access to the site is provided by Rattlecombe Road and there will be gated access to the holiday chalets and the parking area for the Nature Reserve visits as identified on Drawing ref. AL1198-D10v5.

2.2.6 The nature reserve area in the southern part of the site will include semi natural grassland, scrub regeneration, permanent wetland and island, ephemeral wetland/drawdown and areas of bare ground/exposed stone and rock. The nature reserve will also include a bat barn owl roost shed with selected parking areas and viewing areas. Existing hedgerows would be strengthened, and a new hedgerow created. The 18 holiday chalets will be located on the northern part of the site, spread out on grassland and woodland areas.

2.2.7 This revised scheme will require approximately a total of 130,000 m^3 of restoration material of which 90,000m^3 will be imported restoration material (equating to approximately 150,000 tonnes) that will be brought in over 3 years at around 50,000 tonnes per annum. The residual material will come from on-site reserves/top soils which will be used for the pond area, but also as final restoration layers to restore Alkerton Quarry so that the road through the site is reinstated, and the overall profile restored to a low-level scheme. The reinstation of the road will also provide access to the holiday chalets following restoration of the site. There will be no imported waste materials used in the pond area, with only native on-site soils used, as shown in the area outlined in purple in attached drawing ref. AL1198-D12v4.

2.2.8 Topographical modelling of the site identified that there is c.40,000m^3 of available over burden and soils which can be utilised for restoration purposes. Inert materials will also be sourced from off-site local building/development projects which avoid the use of virgin materials for restoration proposals and will also reduce unnecessary transport costs for sourcing virgin materials from locations further afield.

2.2.9 Following a review of the restoration scheme, Oxfordshire County Council commented through pre-application advice letter (Appendix 2) that they are “satisfied with the proposals to amend the restoration, which will seek to ensure greater benefits for biodiversity than the approved scheme”. Thus, providing an enhanced ecological and positive benefit to biodiversity to Alkerton Quarry.

2.2.10 The Application was finally considered by Oxfordshire County Council Planning and Regulation committee on 25th April 2022 and approved subject to a Section 106 agreement relating to vehicle routing. The operator has since submitted further supporting information and the Section 106 no longer applies. Planning permission MW.0124/21 was approved on 9th November 2022 (see decision notice in Appendix 1) for the proposed modification of the approved restoration scheme through importation of inert soil material for nature conservation after-use and the erection of 18 single storey holiday lodges with associated landscaping and car parking.

2.2.11 The only possible sources of contamination from the proposed restoration activities will be limited to any possible leaks and spills of fuel or oils from vehicles and plant used on site. The

placement of restoration materials (inert wastes) has also been considered regarding it's potential as a source of contamination, but due to the inert nature of the wastes, the risk of being a source of contamination is considered negligible. The main sensitive receptor will be the groundwater within the Secondary A Aquifer.

2.2.12 Emissions control measures and strict waste acceptance procedures will be in place at the site and will be included within the site's Environmental Management System. These waste acceptance and control measures will cover the proposed restoration works at the site. This will ensure environmental pollution is prevented and only inert waste types are accepted. The inert wastes for restoration are inherently uncontaminated and do not pose a risk of leaching contaminants. Any non-conforming wastes will be rejected from site. All plant, vehicles and machinery used on site will be regularly checked for leaks and maintained and serviced in accordance with manufacturers guidance. Where refuelling is undertaken on site, this will be done in a designated refuelling area with spill kits available. The use of biodegradable oils and lubricants will be considered where practicable. Static machinery and plant will, where practicable, have integral drip trays of 110% of the capacity of the fuel tank. All staff and contractors will be inducted into the emergency spill procedure and use the spill kits and booms provided to clean up any spillages as quickly as possible. Any storage of hazardous substances, if required, will be above ground in sealed, impervious, fully bunded tanks or containers, with 110% secondary containment. Suspended sediment run-off will be unlikely from site operations and will be controlled during the restoration.

2.2.13 Emissions such as odour, noise & vibration and dust and possible accidents such a spillages have been considered in the Amenity & Accidents Risk Assessment report ref. 4919-CAU-XX-XX-RP-V-0302 as part of this permit variation application. A Dust & Emissions Management Plan (DEMP) has also been produced covering the restoration activities at the site and detailing control measures for dust on-site as a result of the proposed recovery activity.

Waste Volumes

2.2.14 The overall revised restoration scheme requires a total of 130,000m^3 of material for the restoration of Alkerton Quarry. It is anticipated that an estimated 90,000m^3 (equating to approximately 150,000 tonnes) will consist of imported materials required for the restoration of Alkerton Quarry. These will be placed over 3 years with annual inputs of 30,000m^3 (50,000 tonnes per year). Table 1 below summarises the quantity of waste proposed to be used in the recovery operations for the site. It is estimated that approximately 40,000m^3 of topsoils and overburden materials is available on-site and this will be used around the ephemeral pond/wetland area and also as final cover material in the restoration of the site. There will be no imported waste materials used in the pond area, with only native on-site soils used, as shown in the area outlined in purple in attached drawing ref. AL1198-D12v4.

2.2.15 As there is insufficient material on site to complete the restoration, the shortfall of material will be sourced from imported inert wastes. Drawing ref. AL1198-D11v2 (cross-sections) shows the level and depths required to achieve the low-level landform with the reinstation of the road through the site. The total surface area of Alkerton Quarry is 107,330m^2. Existing

overburden on site will be used as native topsoils overlying the imported inert materials, to facilitate a reasonable depth of soil that will assist in current drainage issues in the partially restored, northern part of the site.

Table 1 - Quantity of waste proposed for restoration

	Cubic metres (m^3)	Tonnes
Total quantity of imported waste required	90,000	150,000
On-site materials	40,000	72,000
Imported Annual inputs		
Year 1	30,000	50,000
Year 2	30,000	50,000
Year 3	30,000	50,000

2.2.16 A cross-sectional profile showing the varying depths of materials placement is shown in drawing ref: AL1198-D11v2 'Illustrative cross sections of site and revised restoration scheme' with drawing ref: AL1198-D12v4 showing the cross-section locations. A full topographical survey was undertaken to calculate the minimum fill requirements based on the September 2020 topographical survey and the final restoration levels in 'Comparison of Landforms, Site Conditions and Site Operation' drawing ref: AL1198-D12v4. Tonnage calculations have been based on the amount of material required to fill Alkerton Quarry to meet the revised restoration contours.

Waste Types

2.2.17 Permitted wastes accepted at the site will be strictly inert, and by definition, such waste material will not be capable of generating a leachate that could pose a risk to the groundwater or surface water environment. The potential impact from the placement of restoration soils within Alkerton Quarry is considered to be negligible. The proposed waste types are restrictive and in line with those accepted in standard rules permits where no assessment of the risks to groundwater is considered necessary.

2.2.18 Imported fill will be sourced from inert wastes from local building projects, this will provide an appropriate disposal solution for that material with an opportunity to recover the material for restoration avoiding the need to send significant quantities of waste to landfill. Materials will be well characterised through strict Waste Acceptance Procedures. There will be no imported waste materials used in the pond area, with only native on-site soils used, as shown in the area outlined in purple in attached drawing ref. AL1198-D12v4.

2.2.19 The EWC waste codes to be accepted onto site for restoration are listed in Table 2 below:

Table 2 –Waste Types for Restoration at the Site

Waste Code	Description	Restrictions
01 01	**waste from mineral excavation**	
01 01 02	wastes from metalliferous excavation	Restricted to waste interburden and overburden only.
01 04	**waste from physical and chemical processing of non-metalliferous minerals**	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07	N/A
01 04 09	waste sand and clays	N/A
02 04	**wastes from sugar processing**	
02 04 01	soil from cleaning and washing beet	N/A
10 12	**waste from manufacture of ceramic goods, bricks, tiles and construction products**	
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)	N/A
10 13	**wastes from manufacture of cement, lime and plaster and articles and products made from them**	
10 13 14	waste concrete	N/A
17 01	**concrete, bricks, tiles and ceramics**	
17 01 01	concrete	N/A
17 01 02	bricks	N/A
17 01 03	tiles and ceramics	N/A
17 01 07	mixtures of concrete, bricks, tiles and ceramics (other than those mentioned in 17 01 06)	Metal from reinforced concrete must be removed.
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**	
17 05 04	soil and stones other than those mentioned in 17 05 03	Topsoil, peat, subsoil and stones only.
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting,**	

	pelletising) not otherwise specified	
19 12 09	minerals (for examples sand, stones) only	N/A
19 12 12	other wastes (including mixtures of materials) from mechanic treatment of wastes other than those mentioned in 19 12 11	Restricted to bricks, tiles, concrete and ceramics only.
20 02	**garden and park wastes (including cemetery wastes)**	
20 02 02	soils and stones	Topsoil, peat, subsoil and stones only.

2.2.20 The waste types in Table 2 above are identified by the Environment Agency as suitable for use in the restoration of mineral workings and as general fill material in Environment Agency guidance 'Waste recovery plans and deposit for recovery permits', last updated 31st October 2022.

Method of placement

2.2.21 A scheme of infilling and restoration will ensure that all existing soils remaining on site can be integrated for final restoration of the site and placed in accordance with levels shown in drawing ref: AL1198-D11v2. The inert restoration materials will be sufficiently compacted to form a stable surface for the medium- and long-term and would undergo consolidation rapidly to reduce the risk of short-term instability.

2.2.22 The method of placement has been designed to consider the physical and technical requirements for the restored landform in terms of land stability, drainage and other factors such as the inclusion of landscape features in keeping with the surrounding landscape character. The method of placement and environmental considerations are detailed below and also in the Waste Recovery Plan (WRP) document ref. 4919-CAU-XX-XX-RP-V-0300.

2.2.23 It is proposed to place inert waste to the levels detailed in accordance with the following drawings:

- AL1198-D10v6 – Concept Restoration Scheme for Nature Reserve and Holiday Chalets
- AL1198-D11v2 – Illustrative cross sections of site and revised restoration scheme
- AL1198-D12v4 – Comparison of Landforms, Site Conditions and Site Operation

2.2.24 Excavated inert waste materials will be delivered to site using appropriate road going vehicles. The materials will then be bladed out in layers and compacted using mechanical plant used for the spreading activities. The restoration soils shall be spread in layers to the required thickness to form a smooth even profile without undulations, hollows or depressions.

2.2.25 As per condition 47 of planning consent ref. MW.0020/19, the '*depth of respread soil on land to be restored shall not be less than 1.2 metres*'. Therefore topsoil will consist of 0.4m native soils, overlying 1.2m of rootable zone (for improved growing medium) and inert materials beneath. The depth of inert materials brought to site for restoration to be placed will vary accordingly as can be seen in drawings referenced: AL1198-D11v2 and AL1198-D12v4. The depth of soil will conform to good practice standards for the depth of 1.2m for the rootable profile for achieving optimal restoration to arable land.

2.2.26 The site will operate according to the Waste Acceptance Procedures as detailed in Appendix 5 of the Waste Recovery Plan, to ensure that all incoming and received wastes are fit for purpose, suitable for design and construction and not contaminated. Final ground levels and landscaping will ensure that the site does not result in any environmental problems including soil erosion, pollution or flooding.

Hydrogeological Risk Assessment

2.2.27 A Hydrogeological Risk Assessment has been undertaken that reviews the baseline water environment at Alkerton Quarry and the potential implications of the proposed development, under attached document ref. 4919-CAU-XX-XX-RP-O-0300 (Appendix 3).

2.2.28 This report concluded that the proposed recovery activities do not pose a risk to the groundwater or wider environment, using inert materials which do not have the potential to generate discernible concentrations of contaminants within a leachate liquid. The risks to controlled waters are regulated through the restrictions placed on the imported inert materials through strict waste acceptance criteria prior to accepting onto site. Non-conforming waste loads will be rejected from site.

2.2.29 It was noted that the adjacent SUEZ Alkerton Landfill Site (located on the north-western boundary of Alkerton Quarry) has areas of landfill within engineered containment, and historic parts of the site in dilute and disperse cells which could impact on the existing underlying groundwater quality.

2.2.30 It has been identified that the underlying hydrogeology baseline beneath the site is the Marlstone Rock Formation (ironstone and ferruginous limestone) defined as a Secondary A Aquifer, which has largely been quarried out. The site is located on a groundwater divide and therefore the saturated thickness is expected to be limited. Therefore, the site is not considered to be located within a sensitive groundwater environment due to the extraction of the Secondary A Aquifer unit at the site, the location of the site on a groundwater divide and also the absence of any groundwater abstractions within the local environment. Furthermore, the groundwater quality is likely to have been already compromised by the adjacent dilute and disperse landfill facility.

Gas Risk Assessment

2.2.31 It is considered that the proposed inert wastes to be accepted at the site are stable and do not produce landfill gas which would otherwise require control by site engineering or positive extraction, therefore risks posed to receptors is negligible.

2.2.32 As part of the recent planning application for the site, a Gas Risk Assessment report ref. 4919-CAU-XX-XX-RP-V-0305 (attached as Appendix 5) was undertaken to assess the potential risks posed by the source of landfill gas from the adjacent Alkerton Landfill Site on the western boundary of the quarry. It was concluded that the design of the proposed eco lodges prevents there being a direct pathway for landfill gas to transmit between the ground surface to the lodges. However, it was noted that the residual geology has the potential to transmit landfill gas laterally towards the development and that there is the potential for gas to enter sub-surface structures in the ground if they were to be installed.

2.2.33 This then follows that any ground gas monitoring wells installed in the restored areas of the Alkerton Quarry Site may have the potential to be impacted by sub-surface migration of gas from the adjacent landfill. This should be taken into account when assessing ground gas monitoring data collected at the restored Alkerton Quarry Site, as part of aftercare monitoring.

2.2.34 The site will accept inert waste only until the end of the recovery operation. In-situ native soils will also be used. Inert wastes are stable and do not produce landfill gas which would otherwise require control by site engineering or positive extraction.

2.2.35 In accordance with Environment Agency guidance 'Waste recovery plans and deposit for recovery permits' (published 21st April 2021) it is not considered the site poses a significant risk of gas generation to surrounding receptors. To enable permit surrender, it is proposed to install 2 boreholes per hectare and a minimum of 4 boreholes in the site for in-waste gas monitoring, as per the guidance.

Environmental Issues

2.2.36 It is maintained that the proposed development will not result in significant or adverse environmental effects due to the nature of the inert wastes to be used and the scale of the operations.

2.2.37 As detailed from Section 1.2 of this report, Alkerton Quarry is located approximately 1.2km south of the Cotswolds AONB, which is contiguous with the county boundary with Warwickshire and the eastern edge of the A422/Strafford Road. Balscote Quarry Local Wildlife Site (LWS) lies approximately 250m southeast, however there are no designated wildlife sites adjacent.

2.2.38 An old landfill site (Alkerton Landfill) has been identified on the western edge of Alkerton Quarry, with historic areas of the landfill as dilute and disperse, although the Hydrogeological Risk Assessment (Appendix 3) considers there are no cumulative impacts on groundwater with

respect to the landfill site. The placement of restoration materials could potentially result in an increase in suspended solids within any water accumulating in the base of the void, however this water will be abstracted as part of the quarrying operations and discharged via the silt pond. In terms of surface water, Alkerton Quarry is not located in a hydrologically sensitive area, where local water courses and controlled waters are unlikely to be significantly adversely affected by the restoration materials.

2.2.39 The Hydrogeological Assessment concluded that overall, there are no groundwater or surface water issues or significant risks to these receptors, the revised restoration scheme is not considered to increase surface water flow rates, and no cumulative adverse effect on surface water drainage is likely.

2.2.40 An Ecological Impact Assessment has been undertaken (August 2021) by Exo Tech Ecological Consultancy as part of the planning application, which evaluated habitats and species within Alkerton Quarry. Surveys were undertaken in February and May 2021 to gain an understanding of the current baseline and to identify aspects which could influence the design. The assessment identified potential impacts, mitigation, compensation and enhancement measures which have been considered as part of the design. The hedgerows (and a suitable standoff) will be retained through the Restoration Scheme. In addition, it will feature a larger waterbody and associated wetland. Whilst blocks of Gorse/proposed natural regeneration and other scrub will compensate the loss of Common Linnet and Yellowhammer habitat. The report did not identify any significant indirect impacts on Balscote Quarry Local Wildlife Site (LWS) due to the proposed operations at the site.

2.2.41 No waste recovery activities will take place within any designated/habitat areas and all recovery works and wastes accepted at the site will be subject to strict waste acceptance procedures to ensure the impact to the environment is minimal. Adequate operational procedures will be in place to ensure that there are no silt loadings discharged to nearby surface water bodies.

Environment Agency's Groundwater Protection Position Statement

2.2.42 With reference to '*The Environment Agency's approach to groundwater protection*' policy document (dated February 2018, Version 1.2) the placement of inert waste materials as part of the proposed restoration activities does not pose a potential hazard/pollution risk to the environment or groundwater, as these materials will not be a source of contaminants. Therefore, control measures in addition to site management procedures to protect groundwater from possible pollution from the waste materials is not required.

Site Engineering

2.2.43 The restoration activity will be within the void produced by the excavation of ironstone at Alkerton Quarry, including the location of the old haul road. The recovery activity will be to complete the restoration of the site and to finish the landform to agreed levels using suitable inert restoration materials which are not likely to leach or be a source of contaminants.

2.2.44 Recently updated Environment Agency guidance 'What to include in your environmental setting and site design report' (last updated 31st October 2022) states *'depending on the waste you intend to deposit and the sensitivity of the site, you may need to build an attenuation layer across the base and sides of the site to protect soil and water'*. As discussed in the Hydrogeological Risk Assessment and Gas Risk Assessment chapters above (Sections 2.2.26 and 2.2.33) the sensitive receptors to the site, namely the Secondary A Aquifer (groundwater) within the bedrock, surface water receptors and human receptors have been concluded to be at negligible risk of adverse impacts from the deposit of the inert soils at the site, due to the lack of contamination within the soils and the lack of pathways from the deposited waste to receptors. Therefore, no barrier layer is proposed due to the inert nature of the materials for restoration. . In addition, no waste materials will be placed in the ephemeral pond area, with only in-situ native soils used, as shown in the area outlined in purple on attached drawing ref. AL1198-D12v4.

Leachate Generation

2.2.45 Due to the inert nature of the restoration materials to be accepted, leachate will not be generated within the site and therefore the Environmental Permitting Guidance does not apply (i.e. no barrier engineering is required for the waste materials, as above).

2.2.46 Subject to following strict waste acceptance criteria (inspection of waste materials on site and rejection of non-complying materials), it is unlikely that there will be a generation of leachate as a result of wastes used for restoration and therefore little chance for pollution caused to the environment.

2.2.47 In accordance with Environment Agency guidance 'Landfill and deposit for recovery: aftercare and permit surrender' (last updated 30th March 2022) it must be shown that during aftercare the operator continues to manage, maintain and monitor the site to ensure it does not cause pollution. Waste acceptance records for the wastes deposited will be kept for the recovery operation by the operator to be used as evidence during surrender.

Final landform and after use

2.2.48 The overall purpose of the waste recovery operations at Alkerton Quarry is to achieve a low-level landform in accordance with the planning consent which will provide similar overall restored levels to the previous Restoration Scheme, with a nature conservation and eco-tourism after-use by the use of native on-site soils and imported inert materials from local building developments.

2.2.49 Waste recovery activities for the permanent deposit of inert waste will result in a restoration scheme involving a larger area of Alkerton Quarry being committed to biodiversity and nature conservation purposes and allocated with approximately 0.5ha of the southern area of the site as a Nature Reserve. The site will contribute to country biodiversity targets, in line with guidelines as published in the 'Landscape Character Assessments' and complement the existing Balscote Quarry Local Wildlife Site 250m to the southeast. As the site evolves, there

are further opportunities and partnerships available with Buckinghamshire Bird Club (British Trust for Ornithology) and the Berks, Bucks and Oxen Wildlife Trust (BBOWT).

2.2.50 Once restoration is complete, regular monitoring of ground gas concentrations will be undertaken in the aftercare period to provide environmental evidence to enable permit surrender.

3.0 PATHWAY AND RECEPTOR

3.1 Overview

3.1.1 The pathways and receptors of the site have been characterised from a number of sources including:

- The 'GeoIndex Onshore' map on the British Geological Survey[1] website;
- DEFRA Magic Maps online portal[2];
- Google Earth maps, 2022;
- The Environment Agency 'Catchment Data Explorer'[3] website;
- Hydrogeological Risk Assessment report ref. 4919-CAU-XX-XX-RP-O-0300.

3.2 Geology

Regional Geology

3.2.1 Bedrock: the solid regional geology beneath the site comprises of the Lias Group. The generalised geological succession for the Alkerton Quarry area is outlined below in Table 3:

Table 3 – Regional Geology

Geological Age	Deposit	Description	Regional Thickness
Jurassic	Whitby Mudstone Formation (Upper Lias)	Medium and dark grey fossiliferous mudstone and siltstone, laminated and bituminous in part, with thin siltstone or silty mudstone beds and rare fine-grained calcareous sandstone beds.	C.120m
Jurassic	Marlstone Rock Formation	Sandy, shell-fragmental and ooidal ferruginous limestone interbedded with ferruginous calcareous sandstone, and generally subordinate ferruginous mudstone beds.	C.10m
Jurassic	Dyrham Formation (Middle Lias)	Pale to dark grey and greenish grey, silty and sandy mudstone, with interbeds of silt or very fine-grained sand.	C.125m
Jurassic	Charmouth Mudstone Formation (Lower Lias)	Dark grey laminated shales, and dark, pale and bluish grey mudstones	To C.335m

[1] BGS GeoIndex Onshore, 2022. Found online at: https://mapapps2.bgs.ac.uk/geoindex/home.html
[2] DEFRA Magic Maps, 2022. Found online at: https://magic.defra.gov.uk/MagicMap.aspx
[3] Environment Agency Catchment Data Explorer 2022. Found online at: https://environment.data.gov.uk/catchment-planning/WaterBody/GB104028064350

3.2.2 Superficial deposits: the site is not located on any superficial deposits. The nearest superficial deposits are alluvial deposits constrained within the stream to the west of the site.

Local Geology

3.2.3 The Whitby Mudstone Formation has been mapped in the south-western portion of the site, however this has largely been extracted across the site due to quarrying operations. The Marlstone Rock Formation is present in the northern and central portions of the site, also largely quarried out.

3.2.4 Published geological logs indicate a thickness of the Marlstone Rock Formation up to 7m across the area. The Dyrham Formation (Middle Lias) is found to be up to 26m in thickness at the location of the site. There are no known faults at the site or near to the site.

3.3 Hydrology

Surface Watercourses

3.3.1 The Sor Brook watercourse is located approximately 440m to the northeast of the site, and another watercourse, the Shutford Stream, is located 970m to the west.

3.3.2 The Shutford Stream flows north to south through Alkerton Village, to the west of the site, approximately 970m away. Much of the stream flow is derived from springs that break out along the eastern side of the valley at the Dyrham Formation and Charmouth Mudstone Formation (Middle and Lower Lias) junction.

3.3.3 A spring issues from the ground approximately 440m northeast of the site and forms a stream flowing eastwards. This flows into the Hornton stream approximately 2.3km east of the site.

3.3.4 The site is located on a water divide between these two catchments. Based on topography groundwater is considered to flow towards the east.

3.3.5 Both the Shutford and Hornton Streams are tributaries of the Sor Brook, which flows in a southerly direction approximately 3.5km to the east of the site. The Sor Brook in turn flows into the River Cherwell, which is situated approximately 8km to the east of the site and also flows in a southerly direction.

Surface Waterbodies

3.3.6 The nearest surface water features are a pond(s) within Balscote Quarry Local Wildlife Site (LWS), approximately 250m to the southeast of the site.

3.3.7 Surface water may accumulate in the base of the void, however this water will be abstracted as part of the quarrying operations and discharged via the silt pond. In terms of surface water, local water courses and controlled waters are unlikely to be significantly adversely affected by the restoration materials due to their inert nature.

Catchment Area

3.3.8 According to the Environment Agency 'Catchment Data Explorer' website, the site lies within two local area water catchment areas, being on the boundary of both:

- The 'Shutford Stream (Source to Sor Brook) Water Body' (ID: GB106039037300) to the west of the site, which has an overall classification of 'Poor Ecological Status' for 2022; and,
- The 'Sor Brook (Source to Broughton) Water Body' (ID: GB106039037320) to the northeast, which has an overall classification of 'Poor Ecological Status' for 2022.

3.3.9 The above catchments lie within the Cherwell and Ray Management Catchment, within the regional Thames River Basin District, which covers an area of 16,200km^2 and encompasses all of Greater London, and extends from north Oxfordshire, southwards to Surrey, and from Gloucester in the west to the Thames Estuary and parts of Kent in the east.

3.3.10 The application site is located in a Nitrate Vulnerable Zone (NVZ) for groundwater and surface water, which is an area designated as being at risk from agricultural nitrate pollution into water courses and groundwater. This includes about 55% of land in England according to DEFRA.

Flooding

3.3.11 The Environment Agency (EA) Flood Map[4] shows the risk of flooding in England for different return period events. Flood Zones assume that no flood defences are present and so where defences do exist the Zones are only indicative of the potential flood risk.

3.3.12 Based on the EA's Flood Map the site falls wholly within Flood Zone 1. This area designation is considered to be at very low risk (annual probability of less than 0.1%) of flooding from rivers or the sea.

3.3.13 The majority of the site is also at very low risk of surface water flooding (flash floods). The EA's indicative surface water flood risk map shows that there are individual areas within the site boundary that are at some risk of surface water flooding. The areas generally correlate with the surface features on the ground and are most prominently on the Low and Medium Risk Scenarios.

3.4 Hydrogeology

Source Protection Zones (SPZs)

3.4.1 The site is not within a Source Protection Zone (SPZ). The closest SPZ is a Zone 2c located over 15km to the northwest of the site.

[4] EA Flood Map, 2022: https://flood-map-for-planning.service.gov.uk

Aquifer Characteristics

3.4.2 The screening report and a search on Magic Maps identified that the site is within a Secondary A Aquifer within bedrock, however the majority of bedrock (ironstone) has been extracted out of the site during quarrying.

Water Abstractions

3.4.3 There is one licenced water abstraction located at Upton Farm approximately 1km to the northwest of the site, which can be seen on Figure 2 below. This licence has four conditions attached and details are included in the Hydrogeological Risk Assessment (Appendix 3).

Figure 2 – Location of Private Water Abstraction

3.4.4 The Private Water Supply Regulations 2016 place an obligation on Local Authorities to register and inspect private supplies. Cherwell District Council have confirmed that they do not monitor any private water supplies within 1km radius of the boundary of the site. Communications are included in the Hydrogeological Risk Assessment in Appendix 3.

Groundwater Vulnerability

3.4.5 According to the Magic Maps Groundwater Vulnerability Map, the site is located in an area classified as 'High Groundwater Vulnerability'.

Groundwater Flow

3.4.6 Limited local groundwater elevation data is available; however, it is understood that the groundwater level adjacent to Jenny's Sanctuary is approximately 161.5 mAOD which would be in agreement with the observations regarding the quarry being worked dry.

3.4.7 The site is located on a flat plateau between two valleys to the east and west of the site and a gentle slope towards the south. Alkerton Landfill, to the west, is in part keyed-in to the underlying clay and therefore there is no westerly flow. The relatively close proximity of the valley to the northeast (approximately 460m) suggests that the groundwater is likely to be following a subdued reflection of the surface topography towards the east.

3.4.8 Further afield, there is a well-developed spring line between the Marlstone Rock Formation and the underlying Dyrham Formation. OS maps show several springs are present. The spring to the north of the site near Stratford Road and the business park is at approximately 165mAOD. In contrast, the springs in Balscote approximately 1.1km southwest of the site emerge at 135mAOD.

3.4.9 See Figure 3 below for an extract from the HRA report (attached in Appendix 3) of conceptual groundwater flow directions in the area surrounding Alkerton Quarry ('site'):

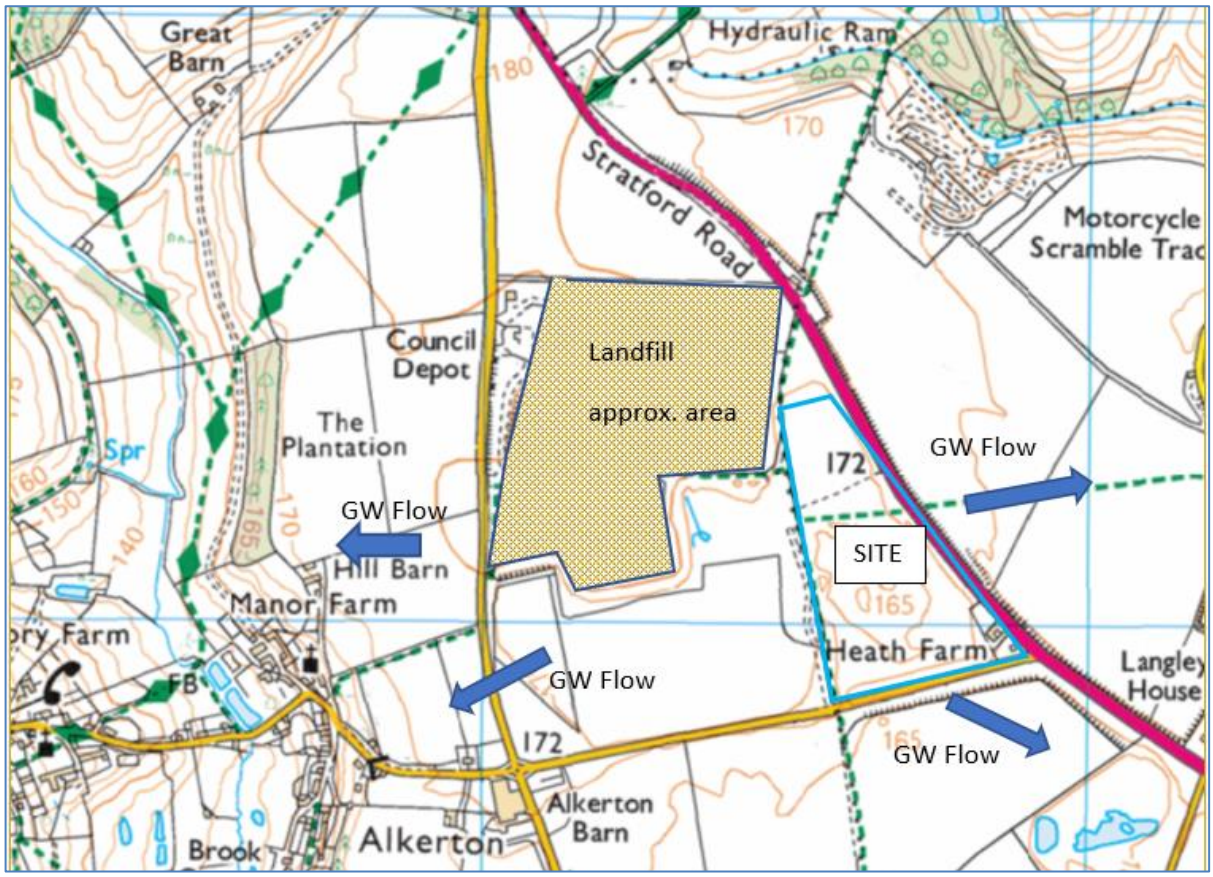


Figure 3 – Groundwater Flow Direction (extract from HRA – Appendix 3)

Groundwater Quality

3.4.10 Alkerton Landfill Site is located adjacent to the north-western boundary of the site. Areas of this landfill is an engineered containment site within an environmental permit, however, there are parts of historic dilute and disperse landfill which maybe having an impact on the underlying groundwater quality.

3.4.11 The importation of restoration soils to the site introduces the potential for an impact on groundwater quality from fuels storage and accidental spillages together with the restoration soil themselves. Waste Acceptance procedures and appropriate controls will be implemented as part of restoration activities at the application site to ensure there is no unacceptable risk to the local groundwater environment. Contaminated loads will be required to be rejected from site prior to processing and as a consequence the risk of roque loads is considered very low. Therefore, the potential impact from the placement of restorations soils within the residual void is considered to be negligible.

3.4.12 Storage tanks will be suitably double-bunded or comprise integral bunded tanks. Spill kits will be kept in close proximity to the filling points in case of accidental spillages. Standard operating procedures will be employed for the refuelling and maintenance of any plant. This may comprise, for example, the use of spill trays and catch pits. As such, any operations at the site will adhere to strict management practices in relation to fuels and potential accidental spillages.

3.5 Man-Made Subsurface Pathways

3.5.1 The design of the site is such that ground levels will be restored to assist with drainage issues in the partially restored, northern part of the site. The ephemeral pond will be designed to capture peak winter runoff such that there is no increase above greenfield runoff rates. Management of the surface water around the perimeter of the site will prevent any runoff originating outside of the site entering the void.

3.5.2 There are no identified man-made subsurface pathways to consider.

3.6 Receptors and Compliance Points

3.6.1 The nearest receptors that will need to be considered within the risk assessments are described below. The sensitive receptors around the site have also been considered in the Amenity and Accidents Risk Assessment report ref. 4919-CAU-XX-XX-RP-V-0302.

Groundwater

3.6.2 The screening report and a search on Magic Maps identified that the site is within a Secondary A Aquifer, defined as *'…permeable layers that can support local water supplies, and may form an important source of base flow to rivers'* within the bedrock, however the majority of bedrock (ironstone) has been extracted out of the site during quarrying.

3.6.3 The site is not within a Source Protection Zone, with the closest, a Zone 2c, located over 15km to the northwest of the site.

3.6.4 Due to the inert nature of the wastes to be accepted for restoration, leachate will not be generated within the restoration materials used at the site and will not impact on potential groundwater receptors.

Surface Water

3.6.5 The nearest surface water features are a pond within Balscote Quarry Local Wildlife Site, approximately 250m to the southeast of the site. The Sor Brook watercourse is located approximately 440m to the northeast of the site, and another watercourse, the Shutford Stream, is located 970m to the west.

3.6.6 The surface water near to site has been identified as a receptor, however, due to the inert nature of the wastes to be accepted for restoration, leachate will not be generated within the site and any run-off will not impact on potential surface water receptors and will be managed during the activities.

Human Amenity (Nuisance and Health Issues)

3.6.7 Amenity issues that may affect receptors from this type of operation are nuisance caused by dust, noise or mud deposited on roads. The nearest human and residential receptors are Jenny's Sanctuary (a non-denominational centre) and a residential property, Heath Farm (also known as White Gables) located immediately south-east of the site. Langley House is 340m to the southeast. The villages of Alkerton and Shenington are situated 800m and 1200m to the west respectively.

3.6.8 A definitive public footpath (reference 418/6) crosses east to west through the site, another open footpath (reference 418/12) passes along the western edge of the site. As part of the revised restoration scheme, the public footpath (reference 418/10) would be returned to its definitive route. The local receptors to the site (within 1km) are identified on drawing ref. 4919-CAU-XX-XX-DR-V-1800, with their direction and distance from the application site boundary tabulated in Table 4 below.

3.6.9 The effect of nuisance factors (fugitive emissions, odour, noise etc.) on these receptors have been risk assessed through the Amenity and Accident Risk Assessment (report ref. 4919-CAU-XX-XX-RP-V-0302). Dust was identified to be a risk from the recovery operations at the site, particularly in dry, windy conditions, therefore a Dust & Emissions Management Plan (DEMP) has been produced as part of this permit application, as document ref. 4919-CAU-XX-XX-RP-V-0304, which includes control measures to be in place at the site to minimise emissions.

Designated Sites of Ecological Importance & Other Habitats

3.6.10 Balscote Quarry Local Wildlife Site (and ponds) is located 250m southeast from Alkerton Quarry, and Cotswolds Area of Outstanding Natural Beauty (AONB) is c1.2km north. South of Rattlecombe Road is an area of woodland categorised under Deciduous Woodland.

3.6.11 The EA screening report and a search on Magic Maps confirmed that the site is not within 1000m of any designated or sensitive habitats including: Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR), Ancient Woodlands, National Nature Reserves (NNR), Protected Habitats or Protected Species.

3.6.12 There are no Scheduled Monuments or Listed Buildings within 500m of the site boundary. There are no Priority Habitats that apply to the site or in adjacent areas.

3.6.13 A review of nearby sensitive receptors within 1km of the site boundary are shown on drawing ref. 4919-CAU-XX-XX-DR-V-1800 and summarised in Table 4 below:

Table 4 – Sensitive Receptors within 1km of the site

Receptor	Designation	Distance and direction
Secondary A Aquifer (bedrock)	Groundwater	Below site
Footpath 418/6	Public right of way	Crosses through site, E to W
Footpath 418/12	Public right of way	0-15m W
Heath Farm (the White Gables)	Residential Receptor	Directly adjacent, SE
Jenny's Sanctuary	Non-denominational Centre	Directly adjacent, SE
Rattlecombe Road	Public road	10-15m S
A422, Stratford Road	Public road	10-15m E
Agricultural Fields	Agricultural	5m up to 1000m N, E, S, W
New Inn	Restaurant	35m NNE
Alkerton Landfill Site	Landfill site	30-50m W
Balscote Quarry Local Wildlife Site (& pond)	Habitat/Surface Water	250m SE
Langley House	Residential dwelling	340m SE
Motor Racing Circuit	Recreational centre	375m NE
Residential dwellings located off Shutford Road	Residential dwellings	350-400m E
Alkerton Recycling Centre	Civic amenity recycling centre	400m NW
Sor Brook	Surface Water	440m NE
Langley Quarry	Disused pits and quarry	450m ESE
St Michael & All Angels Church	Place of worship	800m W

Southfields Farm	Agricultural and residential dwelling	810m SE
Alkerton Oaks Business Park	Commercial and Business premises including: The Event Business Limited TP Knotweed Solutions Workshop Heaven (Tool shop) Bike-More	830m NW
Hornton Grounds	Farmhouse Bed & Breakfast	870m N
Residential properties of Alkerton Village	Residential dwellings	650-1000m W, NW, SW
Shutford Stream	Surface Water	970m W

4.0 POLLUTION CONTROL MEASURES

4.1 Site: General

Security Infrastructure

4.1.1 Alkerton Quarry is surrounded by arable fields and public roads, with hedgerows and tree planting around the perimeters to aid screening. The site is an inactive quarry and as such benefits from existing site security infrastructure i.e. gates, fencing where required, lighting etc.

Groundwater Control or Abstraction

4.1.2 There will be no groundwater control or abstraction systems set up at Alkerton Quarry as part of the restoration activities. No current groundwater management is undertaken as the site sits above the water table.

Surface Water Management Features

4.1.3 The infill and restoration of the site will be operated in a phased manner. It is envisaged that three areas will be open at any one time comprising, an area of open void, an area of infilling and an area for the storage of surface water during storm events. The latter will be pumped to a silt settling lagoon prior to discharge. This operational approach and consequential landform will effectively ensure that the site operations cannot lead to an increase in overall surface water run-off from the site, thus will not increase flood risk elsewhere off site.

4.2 Site Engineering

Basal and side slope engineering

4.2.1 The site is located in a Secondary A Aquifer area, however there are 30m of predominantly mudstone between the base of the quarry void and the underlying groundwater. Therefore, the elevation of the quarry and restoration materials is such that there is no direct impact on groundwater levels from dewatering or enhanced infiltration.

4.2.2 Due to the inert waste that will be deposited as part of the recovery activities, and the negligible risks to groundwater, it is not considered necessary to build an attenuation layer across the base and sides of the site to protect soil and water. There will be no site engineering as part of the recovery activity at the quarry..

Capping

4.2.3 There will be no site engineering as part of the recovery activity at the quarry. The proposed recovery activity does not fall within the requirements of the Landfill Directive and therefore no capping is proposed due to the nature of the inert wastes to be accepted.

4.3 Restoration

4.3.1 This revised scheme will require approximately a total of 130,000 m^3 of restoration material of which 90,000m^3 will be imported restoration material equating to approximately 150,000 tonnes that will be brought in over 3 years at around 50,000 tonnes per annum. The residual material (40,000m^3) will come from on-site native reserves/topsoils which will be used in the ephemeral pond area, but also for final restoration layers to restore Alkerton Quarry so that the road through the site is reinstated, and the overall profile restored to a low-level scheme. The reinstation of the road will also provide access to the holiday chalets following restoration of the site. No imported wastes will be used in the pond area, with only native in-situ soils used, as shown in the area outlined in purple on drawing ref. AL1198-D12v4.

4.3.2 Silt settling ponds will be constructed to minimise the transport of suspended solids (silt) in surface water off-site. Water collecting in the base of the void will be pumped to these silt settling ponds prior to discharge.

4.3.3 The inert nature of the materials to be imported onto site will pose a negligible risk of contamination to surface water and groundwater environments. The in-situ materials on-site are native to the site and therefore are not considered to pose a risk to the environment.

4.4 Post-Closure Controls (Aftercare)

4.4.1 The proposed after-use of the site, post-restoration, is as a nature reserve area in the southern part of the site, which will include semi-natural grassland, scrub regeneration, permanent wetland and island, ephemeral wetland/drawdown and areas of bare ground/exposed stone and rock. The nature reserve will also include a bat barn owl roost shed with selected parking areas and viewing areas. Existing hedgerows would be strengthened, and a new hedgerow created. The 18 holiday chalets will be located on the northern part of the site, spread out on grassland and woodland areas.

4.4.2 The aftercare scheme for the site will include promoting rapid tree growth and maintaining and improving habitats across the site.

5.0 MONITORING

5.1 Weather

5.1.1 Due to the nature of the proposal it is not considered necessary to obtain regular meteorological information from a weather station or local meteorological station. Any meteorological data necessary for the review of post-closure monitoring data will be collected as part of the monitoring exercise.

5.2 Gas Monitoring Infrastructure

5.2.1 The only waste types to be accepted at this site for use as restoration materials will be strictly inert and therefore very unlikely to produce significant quantities of gas. The main receptors likely to be sensitive to any landfill gas generation would be nearby habitats sensitive to die-back caused by ground gas and humans living and working in the nearby homes and businesses to the site, the closest being Heath Farm (White Gables) and Jenny's Sanctuary on the south-eastern boundary, and the New Inn 35m to the NNE.

5.2.2 The risk of ground gas being produced from the inert waste materials to be deposited during the recovery activities is considered to be negligible.

5.2.3 As per current industry guidance for deposit of inert waste on land, gas monitoring will be required in the aftercare phase, and so gas monitoring wells will be installed in the waste on the basis of 2 boreholes per hectare, with a minimum of 4 boreholes per site. The exact locations and quantities of gas monitoring boreholes will be outlined in the aftercare plan for the site. The following parameters will be monitored for:

- Methane
- Carbon dioxide
- Oxygen
- Atmospheric pressure

5.3 Gas Monitoring

5.3.1 The restoration scheme will only use inert wastes, including imported inert wastes and on-site native materials to achieve the final landform. Therefore, it is expected gas will not be produced in significant quantities at the site once restoration is complete.

5.3.2 Gas monitoring will be carried out once all waste deposition has been completed and the site is in the aftercare phase. The guidance requires a minimum of 2 in-waste boreholes per hectare and at least 4 at a site in total.

5.3.3 It will not be necessary to install gas monitoring boreholes within the pond area, as it is not proposed to deposit imported waste in this location, instead only native in-situ soils will be

used there (as shown on attached drawing ref. AL1198-D12v4). Therefore, gas monitoring boreholes will only be installed where waste was deposited, so in the proposed Nature Reserve area in the south around the pond area, and then following the reinstated site road up to the northern area where the eco-lodges will be.

5.4 Groundwater Monitoring Infrastructure

5.4.1 The conceptual site model confirms that groundwater within the bedrock at the site is a sensitive receptor, being a Secondary A Aquifer. However, the risk assessments undertaken as part of this permit application (see Hydrogeological Risk Assessment Section 2.2.28) considers the groundwater to not be at risk of pollution from the proposed recovery activities and waste types to be deposited due to their inert nature not likely to contain or leach contaminants. In addition, only residual groundwater is present beneath the site because the aquifer unit (ironstone) has largely been extracted from beneath the site, with only 1-2m remaining. The quarry was worked to a dry depth of 162 mAOD and there is no dewatering activity or ponded water present suggesting groundwater levels are below the current site surface

5.5 Groundwater Monitoring

5.5.1 Groundwater monitoring is not proposed. Due to the inert waste that will be deposited as part of the recovery activities, and the negligible risks to groundwater, it is not considered necessary to monitor groundwater.

5.5.2 A recent topographic survey for the site indicates that the current ground level beneath the imported restoration soils is circa. 165-165 mAOD (at its lowest point) and, in comparison, the groundwater level is reported at 161.5 mAOD adjacent to nearby Jenny's Sanctuary on the south-eastern boundary of the site. Therefore, there is approximately 3m of unsaturated material beneath the proposed imported fill levels, meaning interaction of groundwater with the deposited inert wastes will be very unlikely.

5.6 Surface Water Monitoring

5.6.1 Any surface water run-off from restored areas will continue to be managed in line with the surface water management scheme for the restored areas of the site.

5.6.2 The final design of the site is such that ground levels will be restored to assist with drainage issues in the partially restored, northern part of the site. The ephemeral pond will be designed to capture peak winter runoff such that there is no increase above greenfield runoff rates. Management of the surface water around the perimeter of the site will prevent any runoff originating outside of the site entering the void.

5.6.1 The holiday chalets will contain a package sewage treatment works with an infiltration network which will be designed and regulated under an environmental permit.

5.6.2 It is not proposed to undertake surface water monitoring as part of the aftercare phase, due to the negligible risks of pollution to surface water as a result of the proposed importation of inert soils to the site for restoration.

5.7 Amenity Monitoring

5.7.1 The conceptual site model for the site indicates restoration activities could have the potential to cause fugitive emissions, such as dust, and other amenity nuisances such as noise, vibration and odour. These risks have been assessed in the Amenity and Accidents Risk Assessment report ref. 4919-CAU-XX-XX-RP-V-0302. As such, a Dust & Emissions Management Plan (DEMP) has been produced as part of this permit variation application as document ref. 4919-CAU-XX-XX-RP-V-0304, to cover the proposed recovery activities. The DEMP will be included within the management system for the site. The control measures in place at the site will ensure risks to receptors will remain low. Control measures will be regularly reviewed by site management and daily site inspections will ensure that the risk of amenity nuisances and accidents being caused by the restoration activities are kept low, as per the site environmental management system. Any incidents or complaints received will be recorded in the site diary and control measures reviewed to reduce reoccurrence. Amenity monitoring and, where necessary, any amenity monitoring locations for the aftercare period will be outlined in the aftercare plan.

6.0 SITE CONDITION REPORT

6.1 Introduction to the Site Condition Report

Site Details

6.1.1 Site details, including information about the surrounding area of the site, are provided in Section 1 of this report.

Outline of proposed development

6.1.2 Details of the proposed development is included in Section 2.2 of this report.

Any former land-uses that may give rise to potential source of non-waste related contamination

6.1.3 Former land-uses that may give rise to potential sources of pollution are presented under the 'Historical development' in Section 2.1 of this report.

6.1.4 Potential contaminants arising from the proposed activities will relate to the recovery materials to be deposited, which are to be inert materials and will not pose a risk to the environment, as described in Section 2.2. The acceptance criteria for the inert materials will dictate the contaminant source, and strict waste acceptance procedures will be in place to ensure only inert wastes are deposited and contaminated wastes are rejected.

Sources of Information

6.1.5 Sources of information which have been reviewed for data on the pollution sources and receptors around the site include:

- The 'GeoIndex Onshore' map on the British Geological Survey website;
- DEFRA Magic Maps online portal;
- Google Earth maps, 2022;
- The Environment Agency 'Catchment Data Explorer' website;
- Hydrogeological Risk Assessment report ref. 4919-CAU-XX-XX-RP-O-0300.

Geology and Hydrogeology

6.1.6 The geology, hydrology and hydrogeology of the area of the site are described in detail in Sections 3.2, 3.3 and 3.4 of this report.

Archive search and land-use chronology

6.1.7 See Section 2.1 of this report.

Relevant information relating to potential contaminants

6.1.8 See Section 2.1 of this report.

Any history of incidents

6.1.9 Any information relating to the historical development and incidents are detailed in Section 2.1 of this report.

Objectives of Site Condition Report and Context with EPR Regime

6.1.10 The Environmental Permitting Regulations (EPR) 2016 require that a permit application is accompanied by a Site Condition Report (SCR), which describes the condition of the whole site, not just the area where the recovery activities are taking place. In particular, operators are required to "identify any substances in, on or under land which may constitute a pollution risk".

6.1.11 This section attempts to provide a factual "baseline" account of the land that may later be compared against the findings of the Completion Report or the results of other investigations. It allows contaminants that were present on the site prior to the issue of the permit to be distinguished from those that occurred as a result of activities undertaken under the permit. The majority of this information is presented in Sections 1, 2 and 3 of this report.

Description of General Approach

6.1.12 This Site Condition Report provides the details on the condition of the land at the time prior to varying the recovery permit, with reference to different types of contaminants to be considered and data collected from any site investigations, laboratory analysis or site visits/surveys, to build an overall picture of the condition of the land prior to amendment of the Environmental Permit. The limitations or constraints of the findings is also discussed and a concluding proposal of baseline conditions for the site presented.

Different types of contaminants to be considered

6.1.13 The possible sources of historical contamination may be from leaks and spills of oils and fuels from plant, vehicles and machinery used at the site during quarrying activities prior to restoration activities, however these will be small in size and not considered a significant risk to the environment. No other potential contaminant sources have been identified.

Description of site investigation and related work activities

6.1.14 A site investigation has not been considered necessary as part of this permit variation application to establish baseline soil conditions. The site was previously operated as an ironstone quarry. The operator has confirmed there are no records of any pollution incidents, leaks or spills of hazardous substances in the area, or any visual evidence of contamination in the ground.

6.2 Conclusions

6.2.1 In consideration of the findings of this Site Condition Report, it has been concluded that the environmental information included provides for a good estimate of baseline conditions at the site.

6.2.2 This report should be used in the future to demonstrate that land and groundwater has been protected during the lifetime of the site and, after a suitable aftercare period, that the land is in a satisfactory state to enable surrender of the Environmental Permit.

7.0 REFERENCES

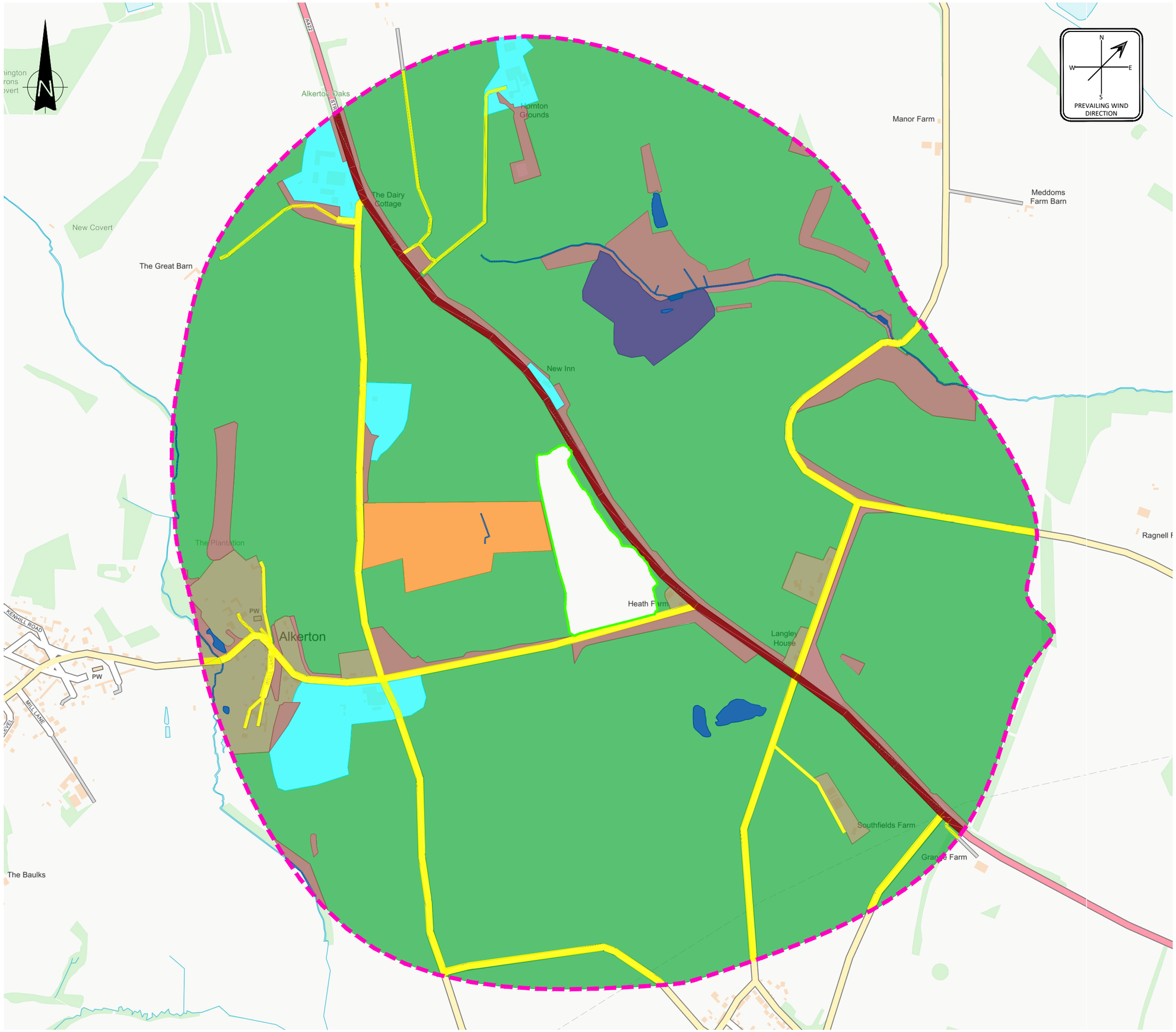
- Environment Agency, published 30th January 2020 (last updated 31st October 2022) guidance: 'Landfill operators: environmental permits - What to include in your environmental setting and site design report', found at: https://www.gov.uk/guidance/landfill-operators-environmental-permits/what-to-include-in-your-environmental-setting-and-site-design-report

- The Environmental Permitting (England and Wales) Regulations 2016. Found at: www.legislation.gov.uk

- Environment Agency, 2018 guidance 'The Environment Agency's approach to groundwater protection', Version 1.2, dated February 2018, found at: https://www.gov.uk/government/publications/groundwater-protection-position-statements

DRAWINGS

4919-CAU-XX-XX-DR-V-1800	Sensitive Receptor Plan
AL1198-D11v2 (August 2021)	Illustrative Cross Sections of Site and Revised Restoration Scheme
AL1198-D12v4 (Rev A Dec 2021)	Comparison of Landforms Site Conditions and Site Operation
AL1198-D10v8 (May 2021)	Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges



LEGEND

- PERMIT BOUNDARY
- 1000m OFFSET
- SURFACE WATER
- WOODLAND / SCRUBLAND
- RECREATIONAL
- INDUSTRIAL
- COMMERCIAL
- RESIDENTIAL
- MAJOR ROAD
- MINOR ROAD
- RAIL
- AGRICULTURAL

REV	MODIFICATIONS	BY	RE	AP	DATE
P01	ISSUED FOR INFORMATION	EJD	SH	SH	07.11.22

PURPOSE OF ISSUE: FOR INFORMATION

STATUS: S2

CLIENT: ALKERTON 2022 LIMITED

PROJECT: ALKERTON RECOVERY PERMIT

TITLE: SENSITIVE RECEPTORS PLAN

DESIGNED BY	DRAWN BY	REVIEWED BY	AUTHORISED BY
EJD	EJD	SH	SH

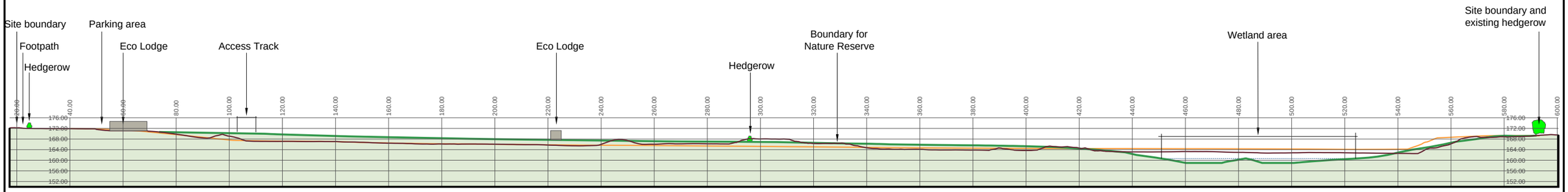
DATE	SCALE @ A3	JOB REF:	REVISION
04.11.2022	1:10,000	4919	P01

DRAWING NUMBER: 4919-CAU-XX-XX-DR-V-1800

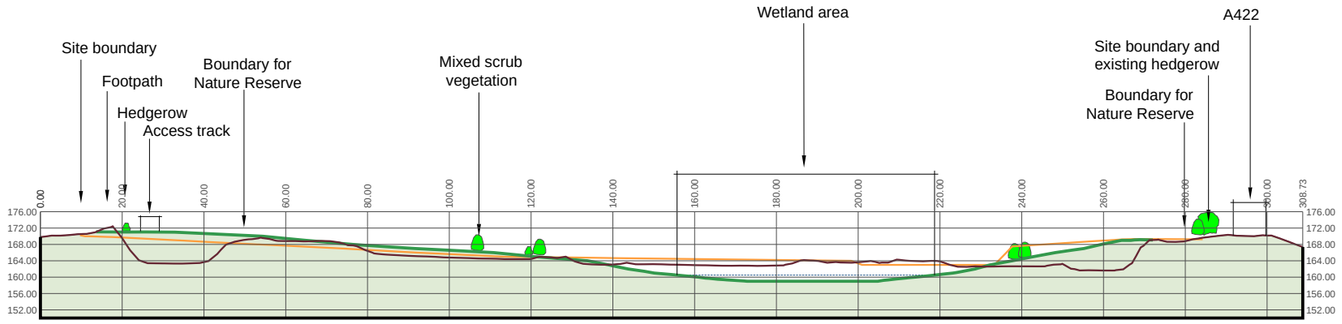
Caulmert
engineering environmental planning

WWW.CAULMERT.COM

Registered Office: InTec, Parc Menai, Bangor, Gwynedd, LL57 4FG Company Registered No: 06716319



Section 1



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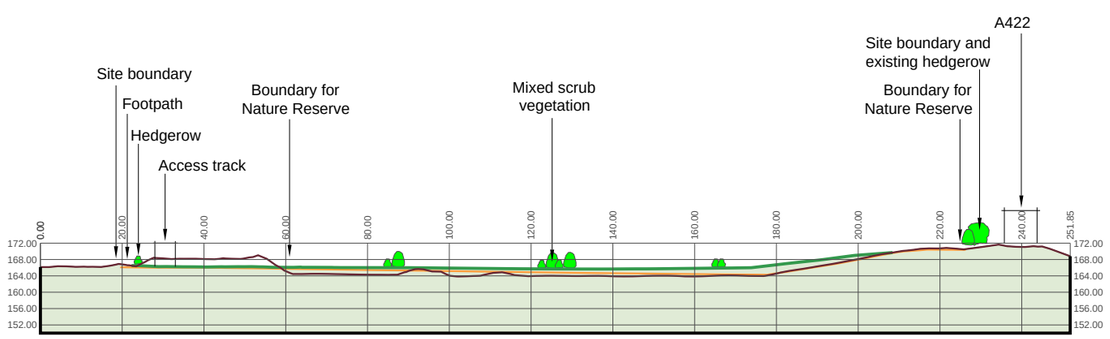

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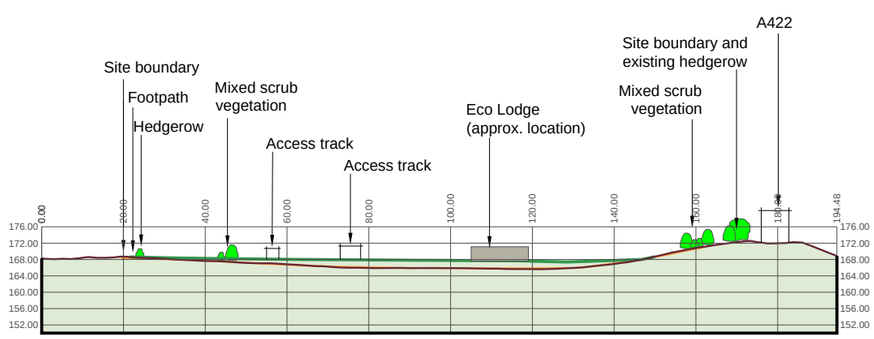
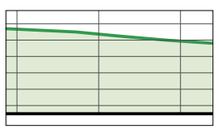


Section 4

Key



Outline and shading to demonstrate proposed final restoration landform

Topographic profile of existing landform

Topographic profile of consented landform

See Figure P5 for alignment of cross sections

Client:

AT Contracting Ltd.

Project:

Restoration of Alkerton Quarry

Title:

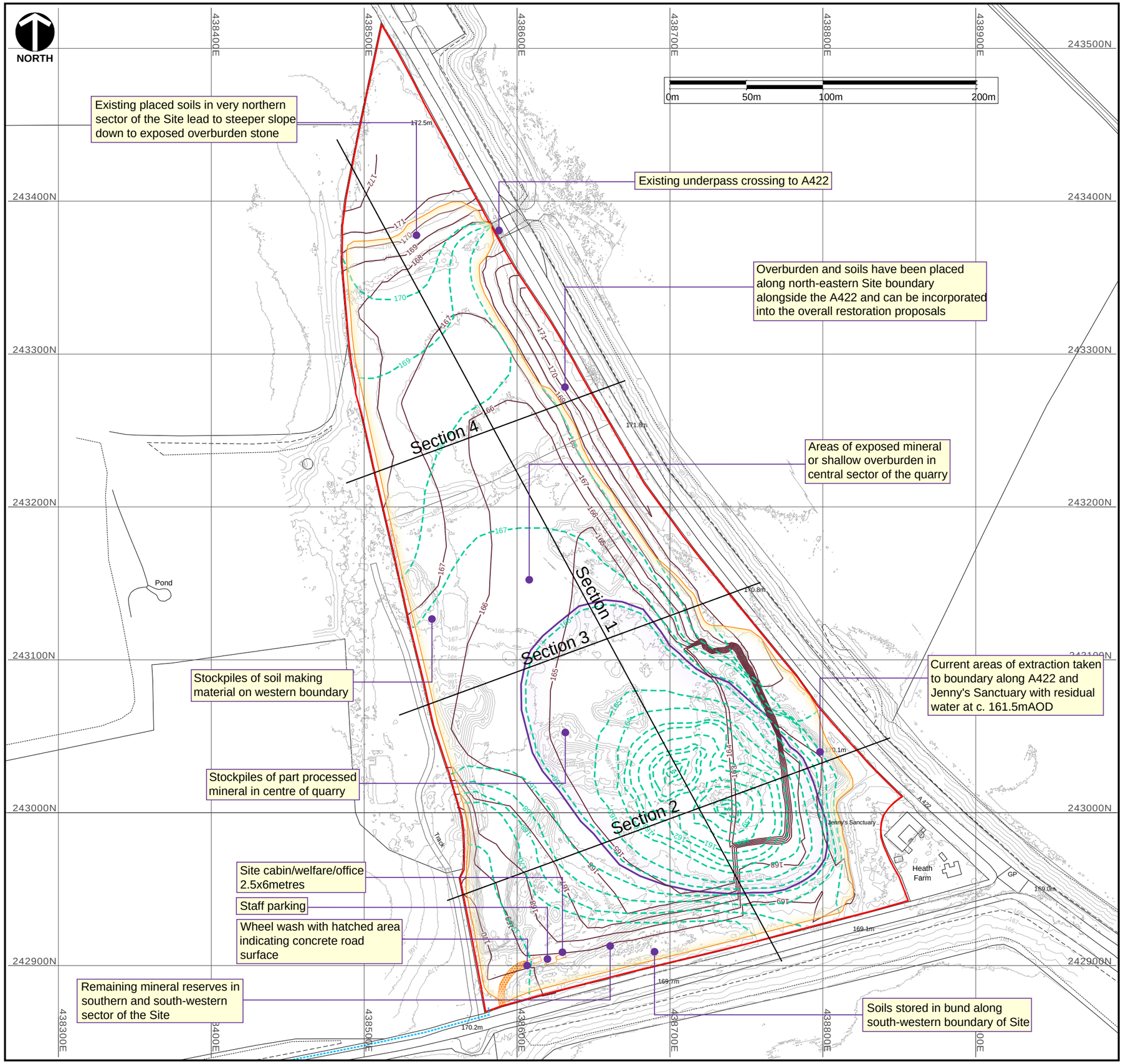
Illustrative Cross Sections of Site and Revised Restoration Scheme

CAD Ref:	Version:	Drawn by:	Scale @ A3:	Origin Date:
AL1198-D11v2	2	RB	Sections 1:1500	August 2021

bright & associates
landscape and environmental consultants
Pear Tree House Dovaston Oswestry Shropshire SY10 8DP
01691 682 773 www.bright-associates.co.uk
Registered Practice Landscape Institute

Drawing:

Figure P6



Key

- Site boundary
- Ordnance Survey Mastermap data
- Topographic survey contours taken from drone survey by Geo-4D (September 2020) Ref: P1441-DC-E123-R0
- Restoration contours set out on drawing Peter Bennie plan ref: benalk/update 160118/rest5 (Jan 2018)
- Proposed contours (green) as illustrated on Figure P5 (cad ref: AL1198-D10v7) (Orange line indicates edge of the proposed landform area)
- Alignment of illustrated cross sections see Figure P6 (cad ref: AL1198-D11v2)
- Proposed location for temporary site cabin, parking and wheel wash during infilling process
- Boundary delineating placement of native soils (i.e. no placement of imported inert soils)
- Proposed connection route of foul drainage for eco lodges. (During infilling, temporary facilities via portable toilet systems will be provided)

'Rev A' December 2021, noted placement of natural soils boundary around pond/SUDS drainage location and connection route of foul drain to main sewer.

Client:

AT Contracting Ltd.

Project:

Restoration of Alkerton Quarry

Title:

Comparison of Landforms, Site Conditions and Site Operation

CAD Ref:	Version:	Drawn by:	Scale @ A3:	Origin Date:
AL1198-D12v4	4	RB	Plan 1:2500	August 2021

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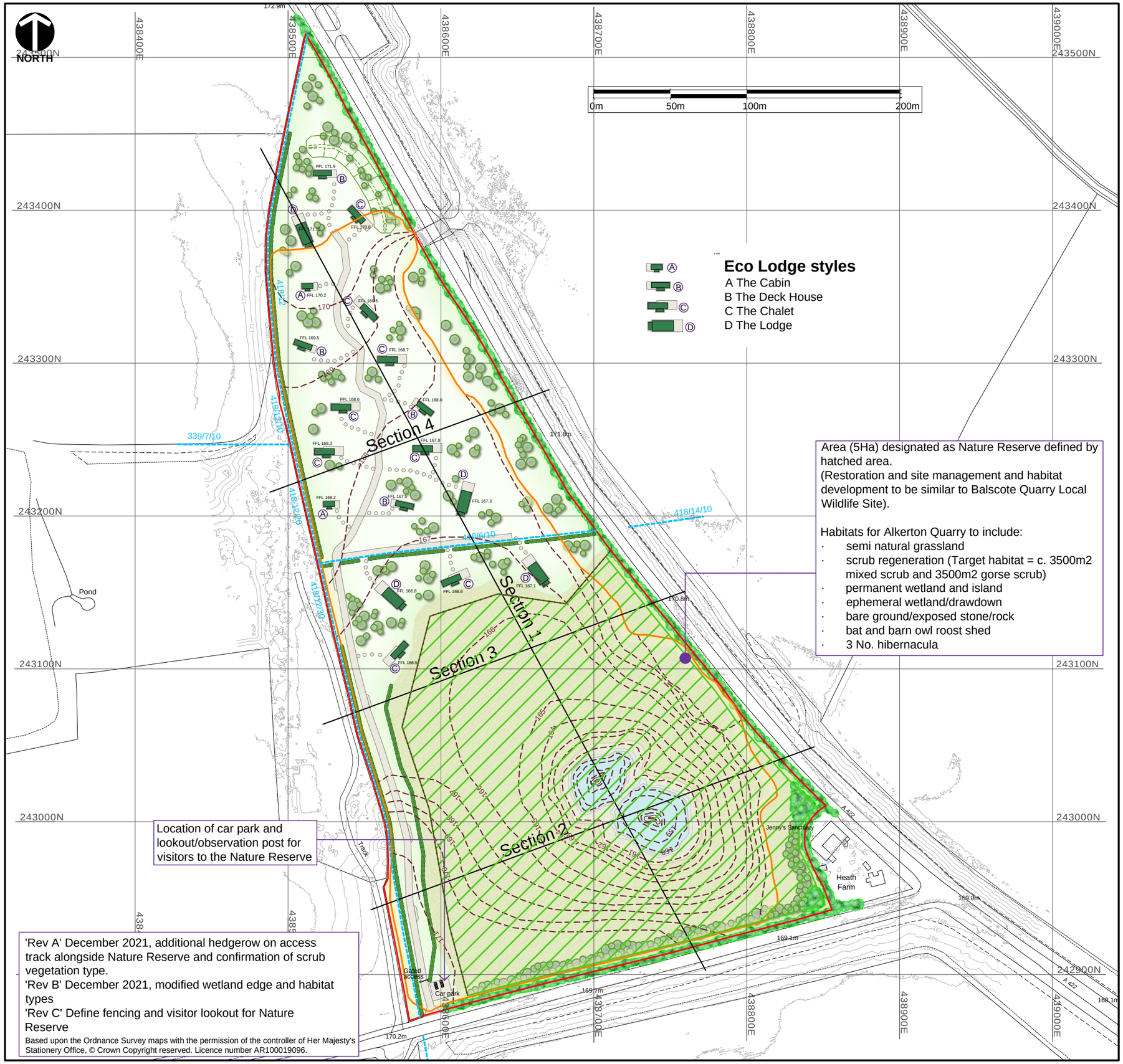
Registered Practice Landscape Institute

Drawing:

Figure P4 (Rev A)



Key

- Site boundary
- Ordnance Survey Mastermap data and background survey information beyond site boundary
- Boundary defining the extent of infill to achieve the restoration landform
- Proposed restoration landform contours
- Proposed 3 metre noise attenuation bund with scrub and lowland grass cover
- Proposed native species hedgerow
- Proposed native species woodland or mixed scrub vegetation with limited canopy height and established with lowland grass areas
- Retained existing hedgerows and broadleaved plantation woodland
- Footpaths retained on definitive route (routes beyond site are shown for reference)
- Illustrative eco lodge units with track access and with floor level indicated
- Hatched diagonal graphic (green line) indicating area of proposed Nature Reserve. Northern and western side of Reserve to have 1.2m post and netting fence (brown line with dots).
- Wetland area with permanent water, draw down zone and island features

For Cross Sections see Figure P6

Client:
AT Contracting Ltd.

Project:
Restoration of Alkerton Quarry

Title:
Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges

CAD Ref:	Version:	Drawn by:	Scale @ A3:	Origin Date:
AL1198-D10v8	8	RB	Plan 1:2500	May. 2021

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01691 682 773 www.bright-associates.co.uk
Registered Practice Landscape Institute

Drawing:
Figure P5 (Rev C)

APPENDIX 1

Planning Permission MW.0020/19 & MW.0124/21

Application No: MW.0020/19 District Ref: 19/00407/CM

OXFORDSHIRE COUNTY COUNCIL

County Planning Authority

TOWN AND COUNTRY PLANNING ACT 1990
TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND)
ORDER 2015

To: Peter Bennie Limited
The Piggeries
Cranford Road
Burton Latimer
Northampton
NN15 5TB

CONDITIONAL PLANNING PERMISSION

Section 73 application to vary condition 99 of planning permission ref 12/01365/CM (MW.0113/12); to relocate the ephemeral pond at Alkerton Quarry, Rattlecombe Road (Heading East To Stratford Road), Alkerton, Oxon, OX15 6HY

The OXFORDSHIRE COUNTY COUNCIL as County Planning Authority hereby GRANT PLANNING PERMISSION for this development SUBJECT TO the conditions set out in the attached Schedule 1.

The reasons for the imposition of the conditions are as set out in the attached Schedule 1.

The relevant Development Plan policies are set out in the attached Schedule 2.

Dated: 21 November 2019

Susan Halliwell
Director for Planning & Place

YOUR ATTENTION IS DRAWN TO THE NOTES OVERLEAF

Notes

IMPORTANT

- This permission does not convey or imply any approval or consent which may be required under any enactment, byelaw, order or regulation other than section 57 of the Town and Country Planning Act 1990.

- Application for approval under the Building Regulations must be made to the Council for the district in which the land is situated.

Appeals to the Secretary of State

- If you are aggrieved by the decision of the County Planning Authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal, then you must do so within six months of the date of this notice, however if an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against the County Planning Authority's decision on your application then you must do so within: 28 days of the date of service of the enforcement notice, or within 6 months of the date of this notice, whichever period expires earlier using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN (Tel: 0303 444 5000) or online at https://www.gov.uk/planning-inspectorate
- The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

- The Secretary of State need not consider an appeal if it seems to him that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.
- If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. Further details are on GOV.UK.

Purchase Notices

- If either the County planning authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

- In these circumstances, the owner may serve a purchase notice on the Council of the District in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

Schedule 1 - Conditions

All the Site

1. No development shall be carried out other than in strict accordance with the approved plans and details approved under planning permission 05/01507/CM, GPP/PBL/WF/1/02, ALK/E, ALK.W, ALK.PDR/X, ALK.FP, ALK.PDR, SRL/1-15, ALK/MP/A, HORNT/N/A, HORNT/RA/A, HORNT/W/RevC, HORNT/E/B, HORNT/W/B, HORNT/E/X/A, HORNT/BW/A, HORNT/PDR/B, 054/P.01, 054/P/02, 054/P/04, 054/P/05, 054/P/06, and Edge and Pritchard Drawings 3, 4, 5.

   Reason: For the avoidance of doubt and to maintain planning control over the site.

2. No working on the site shall take place except in areas outlined in green on approved plans HORNT/W/RevC and ALK/MP/A and in red on approved plan 054/P/06.

   Reason: To limit working primarily to areas proposed for workings and to prevent reworking of areas now restored. (OMWCS C5)

3. Notwithstanding conditions 1, 2, 59 and 60, working can take place in areas on approved plans GPP/PBL/WF/1/02, ALK/W, 054/P/01, 054/P/02, 054/P/04, 054/P/05 which are shown for working. No working shall take place on areas cross hatched black on those plans except in accordance with condition 4.

   Reason: To prevent working taking place close to villages or residential properties to the detriment of amenity of residents or the countryside. (OMWCS C5)

4. (a) No mineral working or activity associated with mineral working shall take place within 350 metres of any dwelling in any phases, as approved under condition 61, that affects Balscote or Wroxton, except in accordance with a scheme to be approved by the Mineral Planning Authority that proves that no adverse environmental effects with respect to noise and dust will be experienced by people living in these dwellings. The Mineral Planning Authority will expect the scheme to be supported by an environmental assessment using facts and figures collected both on site and in the villages over a suitable period of time.

   (b) In any event no working shall take place within 200 metres of any dwelling in Balscote or Wroxton.

   Reason: To prevent working taking place close to villages or residential properties to the detriment of the amenity of residents or the countryside and to ensure that the operators are aware of the need to establish that the residents will not suffer from environmental problems if quarrying within the 350 and 200 metres zone is to be allowed. (OMWCS C5)

5. Planting on land between points A to K on approved plan 054/P/06 and L to M on approved plan ALK/W shall be maintained in accordance with the approved plans 090/CO2/250901/M2 and letters dated 19 October 2001 and 12 December 2001.

   Reason: To provide a natural screen for the site. (OMWCS C5)

6. No more than an average of 350,000 tonnes per annum of mineral shall be exported from the site in any given three-year period.

   Reason: To protect the amenities of properties in Wroxton and Drayton. (OMWCS

C5)

Informative: The Mineral Planning Authority may agree to vary this condition to allow an increase in the annual average tonnage if as a result of an Environmental Impact Study assessing the effects of development traffic on villages along the A422 it is satisfied that such increase can be accommodated without adverse environmental effects.

7. No vehicle shall enter the public highway unless its wheels and chassis have been cleaned to prevent material being deposited on the highway.

   Reason: In the interests of highway safety and to prevent mud and dust getting on the highway. (OMWCS C10)

8. No mineral shall be exported from any phase (as defined under condition 61) until a wheelwash has been installed in the area or phase in accordance with details approved by the Mineral Planning Authority.

   Reason: In the interests of highway safety and to prevent mud and dust getting on the highway. (OMWCS C10)

9. No mud, mineral or debris shall be deposited on the public highway.

   Reason: In the interests of highway safety. (OMWCS C10)

10. Temporary screening bunds shall not be other than 4 metres in height, 16 metres wide across the base and with sides of slope 1 metre high and 2 metres horizontal and at no time shall the bunds be more than 80 metres, measured from the apex of the bund, from the working face. The bunds shall be graded to give a smooth visual appearance and shall be kept weed-free and in dry weather shall be sprayed with water to reduce dust blow. Any bund that is in place for longer than six months shall be sown with grass seed in the Spring or Autumn.

    Reason: To protect residents in and near the site from noise intrusion and to limit visual and dust intrusion. (OMWCS C5)

11. No loaded lorries shall leave the site unsheeted.

    Reason: To prevent dust being brought onto the highway for the safety of users of the highway. (OMWCS C10)

12. No material shall be burnt on site.

    Reason: To prevent air pollution. (OMWCS C5)

13. No blasting shall be carried out on site.

    Reason: To prevent noise intrusion and vibrations to local residents. (OMWCS C5)

14. Notwithstanding the provision of the Town and Country Planning (General Permitted Development) Order 1995, or any Order revoking and re-enacting that Order, no additional buildings, plant, machinery, or structure (whether a fixed or portable design) shall be erected or placed on site.

    Reason: To allow the Mineral Planning Authority to maintain control over potentially

noisy or inappropriate development. (OMWCS C5)

15. No operations authorised or required by this permission shall be carried out and plant shall not be operated or lorries loaded or despatched, other than during the following hours:

    Between 0700 and 1800 hours, Mondays to Fridays;
    0700 and 1300 hours on Saturdays.

    No such operations shall take place on Sundays or recognised public holidays or on Saturdays immediately following bank holiday Fridays.

    Reason: In the interests of the amenities of the area. (OMWCS C5)

16. Notwithstanding condition 14 no operations for the formation and subsequent removal of material from the bunds and soil storage areas shall be carried out at the site except between

    0800 and 1800 hours, Mondays to Fridays;
    0800 and 1300 hours on Saturdays.

    No such operations shall take place on Sundays or recognised public holidays or on Saturdays immediately following bank holiday Fridays.

    Reason: In the interests of the amenities of the area. (OMWCS C5)

17. All vehicles, plant and machinery operated within the site shall be maintained in accordance with the manufacturer's specification at all times and shall be fitted with and use effective silencers.

    Reason: To reduce noise levels in the vicinity of the working area to acceptable levels. (OMWCS C5)

18. No audible equipment warning of reversing vehicles shall be used on the mobile plant.

    Reason: To reduce noise intrusion in the area. (OMWCS C5)

19. Soil stripping and respreading and construction and removal of bunds shall not take place for longer than six consecutive weeks in any year. Noise levels from these activities shall not exceed 65dB LAeq 1 hr freefield when measured 2.5 metres from any noise sensitive location in the vicinity of these areas. If these noise limits are exceeded the working will stop until measures have been agreed in writing with the Mineral Planning Authority to ensure that noise limits are not exceeded.

    Reason: To reduce noise levels in the vicinity of the working areas to acceptable levels. (OMWCS C5)

20. No working shall take place in a part of the site until permitted levels of dust at set locations adjacent to working phases have been approved in writing by the Mineral Planning Authority. In the Event that these levels are exceeded, working shall stop in the relevant phase until appropriate measures for limiting dust pollution have been agreed in writing by the Mineral Planning Authority.

    Reason: To ensure that dust pollution is not a problem for residents close to the

site. (OMWCS C5)

21. No floodlighting or speakers of a tannoy system shall be used on site, except in accordance with details approved in writing by the Mineral Planning Authority.

    Reason: To avoid light or noise pollution to nearby residential properties. (OMWCS C5)

22. All fuel tanks shall be sited on a concrete base surrounded by bund walls capable of retaining at least 110% of the tank volume and any spillages from fill or draw pipes. Any water which accumulates in the bunded area shall be removed and disposed of in a manner appropriate to the quality of the water.

    Reason: To prevent pollution of the groundwater. (OMWCS C4)

23. Soils and overburden to be stripped but not required for the construction of screening bunds shall be removed directly to the area of restoration for immediate respreading.

    Reason: To aid good restoration. (OMWCS M10)

24. The development shall cease not later than 31 December 2042 and all the land worked shall be restored in accordance with conditions of this permission within one year of that date.

    Reason: To comply with Section 91 of the Town and Country Planning Act 1970. (OMWCS M10)

25. In the event of cessation of winning and working of minerals for two years or more prior to the end date set in Condition 23, which constitutes a permanent cessation within the terms of paragraph 3 of Schedule 9 of the Town and Country Planning Act 1990 or any subsequent Act which revokes or re-enacts that Act, a revised scheme of aftercare and restoration shall be submitted, for those areas worked but not restored, to the Mineral Planning Authority within six months of the Mineral Planning Authority notifying the operator of the cessation. Any scheme that is approved shall be implemented within one year of that scheme's written approval.

    Reason: To ensure that restoration is carried out as early as possible following early cessation of working. (OMWCS M10)

26. All fixed plant and machinery shall be removed from any phase and that phase restored, in accordance with agricultural restoration schemes approved by the Mineral Planning Authority, within one year of working ceasing in that phase.

    Reason: To ensure that restoration takes place as quickly as possible. (OMWCS M10)

27. No pumping of water shall take place from the site except in accordance with a scheme to be agreed in writing by the Mineral Planning Authority.

    Reason: To ensure that any water pumping is carried out without detriment to amenities of local residents. (OMWCS C5)

28. No topsoil, subsoil, or overburden shall be exported from the site.

    Reason: To ensure restoration to agriculture of the highest possible grade.

(OMWCS C6)

29. Topsoil, subsoil and overburden shall be separately stripped from one another, separately temporarily stored when necessary and separately respread.

Reason: To ensure restoration to agriculture of the highest possible grade. (OMWCS C6)

30. No soil shall be stripped, handled or replaced except when the soil is in a dry and friable condition and the weather conditions are dry.

Reason: To ensure restoration to agriculture of the highest possible grade. (OMWCS C6)

31. No access roads approved under Condition 61 shall be less than 5.5 metres wide and they shall be metalled for at least 20 metres from the public highway.

Reason: In the interests of highway safety. (OMWCS C10)

32. No working shall take place in any phase unless the metalled road from the access point to the A422 is at least 5.5 metres wide.

Reason: In the interests of highway safety. (OMWCS C10)

33. No vehicular accesses to the public highway, other than those approved under conditions of this permission, shall be formed or used.

Reason: In the interests of highway safety. (OMWCS C10)

34. No working shall take place within 10 metres of the public highway or other boundary of the site.

Reason: To ensure that the boundaries of the site are maintained. (OMWCS C5)

35. No restoration of the boundaries of the site shall take place that has slopes steeper than 1 metre vertical to 8 metres horizontal unless otherwise agreed in writing by the Mineral Planning Authority, except for the restoration of Alkerton Quarry, where the slopes shall be no steeper than 1 metre vertical to the 6 metres horizontal. Finished slopes shall be rolled so that no sharp changes of slope result. Plans shall be submitted for the approval of the Mineral Planning Authority showing cross-sections through the restored quarry edges to achieve the slope shape required by this condition.

Reason: To achieve restoration levels that match with the surrounding landscape. (OMWCS C8)

36. No extraction or other operations shall take place within 1.5 times the spread of any tree at the boundary of the site.

Reason: To protect existing mature trees. (OMWCS C5)

37. No regrading or stockpiling of soils, minerals or mineral waste shall take place within 5 metres of any tree or hedgerow on the boundary of the site.

Reason: To ensure trees and hedgerows are protected. (OMWCS C5)

38. At least 14 days notice of commencement of a soil stripping programme shall be given to the Mineral Planning Authority and the operator shall afford access at all reasonable times to archaeologists nominated by the Mineral Planning Authority who shall be allowed to observe the excavations and record items of interest and finds.

    Reason: To ensure the recording of any archaeological finds. (OMWCS C9)

39. No operations shall begin in any phase of the site or in areas outlined in green on approved plan ALK/MP/A until the working margins have been pegged out and the prior written approval of the Mineral Planning Authority has been received to the pegged out margins . The pegs shall be maintained in the approved positions for the duration of operations in each phase.

    Reason: To ensure that workings do not encroach beyond the permitted boundaries. (OMWCS C5)

40. Restoration shall include removal of all haul roads, foundations, hardstandings, buildings, plant, structures and fences, excluding protective fencing for planted areas, except at Alkerton Quarry where part of the haul road shall be retained for access for agricultural use of the restored land.

    Reason: To ensure the best possible agricultural restoration. (OMWCS C8)

41. Finished levels following restoration shall not be other than as shown on approved plans.

    Reason: To ensure the best possible restored landscape. (OMWCS C8)

42. Where soils are stripped or respread using tractor and box scraper the soil shall be ripped following respreading.

    Reason: To facilitate good agricultural restoration. (OMWCS C6)

43. The overburden shall be ripped prior to soil replacement and any objects over 200 mm in any dimension shall be removed from the site or buried at least 2 metres below final land levels.

    Reason: To facilitate good agricultural restoration. (OMWCS C6)

44. Stones and other objects greater than 150 mm in any dimension shall be removed from subsoil following respreading.

    Reason: To facilitate good agricultural restoration. (OMWCS C6)

45. No restored land shall have slopes shallower than 1 vertical to 100 horizontal.

    Reason: To facilitate good agricultural restoration. (OMWCS C6)

46. Land shall not be restored to levels below surrounding land levels such that surface and subsurface drainage is impeded and no drainage outfall is available.

    Reason: To facilitate good agricultural restoration. (OMWCS C6)

47. The depth of respread soil on land to be restored shall not be less than 1.2 metres.

Reason: To facilitate good agricultural restoration. (OMWCS C6)

48. When the soil is respread it shall not be in layers thicker than 250 mm. Each respread layer shall be ripped to a depth of at least 150 mm and shall be stone picked.

Reason: To facilitate good agricultural restoration. (OMWCS C6)

49. Stones and other objects greater than 100 mm in any dimension shall be removed from topsoil following respreading.

Reason: To facilitate good agricultural restoration. (OMWCS C6)

50. No development shall take place within 10 metres of any watercourse and that margin shall remain completely unobstructed.

Reason: To retain access to the watercourse to allow the Environment Agency to carry out its functions. (OMWCS C4)

51. There shall be no direct connection between the pits and any watercourse.

Reason: To prevent pollution of the water environment. (OMWCS C4)

52. Surface water drainage of any restored phases shall be in accordance with a scheme to be agreed by the Mineral Planning Authority before extraction begins in that phase.

Reason: To prevent the risk of flooding and of pollution of the water environment. (OMWCS C4)

53. No pumping from the excavations shall take place whilst the adjoining watercourses are running bank full.

Reason: To prevent the risk of flooding. (OMWCS C4)

54. No watercourse shall be incorporated into the workings.

Reason: To prevent pollution of the water environment. (OMWCS C4)

55. No working shall take place that will derogate from any domestic and licensed groundwater sources in the area.

Reason: To prevent adverse effects on groundwater sources. (OMWCS C4)

56. No working shall take place that will adversely affect flows or levels in any river, stream, ditch, spring, lake or pond in the vicinity.

Reason: To prevent adverse effects on surface water sources. (OMWCS C4)

57. Internal haul roads shall be kept free of mud at all times and shall be wetted in dry weather sufficient to prevent dust being formed by the passage of lorries.

Reason: To prevent dust pollution. (OMWCS C5)

58. All access roads and haul roads within the site shall be kept free of potholes.

Reason: To prevent noise intrusion. (OMWCS C5)

59. Notwithstanding condition 15, and expect with the prior arrangement of the Mineral Planning Authority in writing, no operations authorised or required by this permission shall be carried out and plant shall not be operated or lorries loaded or dispatched from any land within 350 metres of any dwelling in any phase as defined by condition 61, other than during the following hours:

    Between 0730 and 1800 hours Mondays to Fridays
    0730 and 1300 hours on Saturdays.

    Reason: In the interests of the amenities of the area. (OMWCS C5)

<u>All the site except Hornton and Alkerton</u>

60. No other working on the site shall take place until the area outlined in green on approved plan HORNT/W/RevC has been worked out except that minerals may be worked in the area outlined in green on approved plan no. ALK/MP/A.

    Reason: To restrict the extent of working in order to limit environmental disturbance. (OMWCS C5)

61. No working shall take place outside the areas outlined in green on approved plans HORNT/W/RevC and ALK/MP/A except in accordance with the approved plan ref: GPP/PBL/WF/1/02. Working shall be limited to only one phase at any one time, although works for the preparation of extraction and restoration may take place in other phases in accordance with details approved in writing by the Mineral Planning Authority.

    Reason: To restrict the extent of working in order to limit environmental disturbance. (OMWCS C5)

62. No mineral extraction shall take place on any land within the site outside the areas bounded by green lines on approved plans HORNT/W/RevC, ALK/MP/A and phase 1 until details of working, including phasing, method of soil stripping, mineral stockpiling and plant to be used, method of extraction and plant to be used, visual and dust control, access, restoration, landscaping and aftercare have been submitted to and approved by the Mineral Planning Authority in writing.

    Reason: In order to properly control mineral working within the site. (OMWCS C5)

63. No development shall commence on any Phase of the site, except that outlined in green on approved plans HORNT/W/RevC, ALK/MP/A and at Phase 1, until a scheme of noise monitoring and control for that part has been submitted to and approved by the Mineral Planning Authority in writing. The scheme shall include:

    (i) measurement of ambient noise levels;
    (ii) noise monitoring locations;
    (iii) frequency of measurements;
    (iv) limits of noise at any specified location; and
    (v) cessation of working until noise reduction measures have been agreed in writing with the Mineral Planning Authority if noise levels have been exceeded.

    No development shall take place except in accordance with an approved scheme.

Reason: To reduce noise levels in the vicinity of the working area to acceptable levels. (OMWCS C5)

64. The maximum area of the site, excluding land outlined in green on approved plan ALK/MP/A, which at any one time may be stripped of topsoil in advance of working, or under excavation or excavated but not restored, shall not exceed 12 hectares (excluding roadways, any conservation stone compound, office wheelwash and car parking area and other approved buildings).

Reason: To ensure that the maximum area is available for uses other than quarrying. (OMWCS C5)

65. Noise from the development shall not increase background noise levels by 5 dB LAeq 1 hour freefield, or more, when measured 2.5 metres from a noise sensitive area, except in those areas outlined in green on approved plans ALK/MP/A and HORNT/W/RevC and except in phases 1 and 2 as shown on plan GPP/PBL/WF/1/02.

Reason: To protect residents from noise intrusion. (OMWCS C5)

66. No extraction shall take place within any phase, as defined by condition 61, except in accordance with a scheme to be agreed by the Mineral Planning Authority in writing to ensure the stability of electricity pylons or poles or underground electricity cables.

Reason: To ensure the stability of electricity pylons, poles or cables. (OMWCS C5)

67. With the exception of Phase 1 no development shall take place in any phase of working except in accordance with a scheme of dust suppression approved by the Mineral Planning Authority in writing which shall include:-

(i) dust monitoring locations;
(ii) frequency of sampling;
(iii) suppression of dust from any operations in the site;
(iv) levels of dust that must not be exceeded when measured at the dust monitoring levels;
(v) mitigating measures that will be implemented in the event that dust levels are exceeded.

Reason: To control the level of dust from the workings to acceptable levels. (OMWCS C5)

68. Prior to the commencement of extraction operations within any phase except the areas outlined in green on approved plans HORNT/W/RevC, ALK/MP/A and Phase 1 - a detailed landform restoration scheme to include proposals for planting with trees, hedgerows and the progressive return of the land to agriculture or forestry, shall be submitted to the Mineral Planning Authority. The scheme shall also include details of:

(i) the nature of the intended after-use of the site;
(ii) the sequence and programming of reclamation showing clearly their relationship to the working scheme;
(iii) the respreading over the floor of the excavated area of mineral waste, overburden, subsoil and topsoil previously stripped from the site, in that order and the depths and placement of respreading materials;
(iv) the ripping of any compacted layers of final cover to ensure adequate

drainage and aeration; such ripping should normally take place before placing of the topsoil;
(v) the machinery to be used in soil respreading operations;
(vi) the final levels of the reclaimed land and the gradient of the restored slopes around the margins of the extraction;
(vii) drainage of the reclaimed land, including the formation of suitably graded contours to promote natural drainage where possible or, if not, artificial drainage;
(viii) the reinstatement of the site and access road by clearing plant, buildings, machinery, deep cultivation in both directions to remove rocks and other obstructions, replacing of subsoil and then topsoil previously stripped from the sites; and
(ix) the phased planting and seeding of the restored area.

Any scheme that is approved shall be implemented.

Reason: To ensure the most successful restoration possible. (OMWCS M10)

69. Within 12 months of the approval of the restoration scheme approved under condition 68, an aftercare scheme requiring that such steps as may be necessary to bring the land to the required standard for whatever restoration is approved, shall be submitted for the written approval of the Mineral Planning Authority. The aftercare steps for agricultural restoration shall include soil testing, the cropping pattern, cultivation practices, stonepicking, remedial treatments, fertilisation treatment, water supply for agricultural and woodland areas, the provision of an efficient field drainage system, seed mixes and shelter belts and hedges. Examination of the soil profile shall take place in the third year.

Reason: To ensure that the restored land is correctly husbanded. (OMWCS C5)

70. The aftercare of the land, restored under the provisions of condition 68, shall be carried out for a period of five years following the complete restoration of each phase, in accordance with the approved aftercare scheme or as may be subsequently amended with the approval in writing of the Mineral Planning Authority.

Reason: To ensure that the restored land is correctly husbanded. (OMWCS M10)

71. For land restored under the provisions of condition 68, for every year and before 31 August each year during the aftercare period, a report shall be submitted to the Mineral Planning Authority recording the operations carried out on the land during the previous 12 months and setting out the intended operations for the next 12 months.

Reason: To ensure that the restored land is correctly husbanded. (OMWCS M10)

72. For the land restored under the provisions of condition 68, every year during the aftercare period the developer shall arrange a site meeting to be held before 30 November to discuss the report prepared in accordance with condition 70 to which the following parties shall be invited:

(a) the Mineral Planning Authority,
(b) DEFRA,
(c) the owner of the land within the site, and
(d) all occupiers of land within the site.

Reason: To ensure that the restored land is correctly husbanded. (OMWCS M10)

73. No access shall be formed or used to any part of the site except that outlined in green on approved plans HORNT/W/RevC, ALK/MP/A or Phase 1 until the Mineral Planning Authority has agreed the position, design and construction details of that access.

    Reason: For the safety of users of the highway. (OMWCS C10)

74. No working shall take place in any other phase except Phase 1 until a plan showing landscaping has been submitted to and approved by the Mineral Planning Authority. That plan shall include protection of all trees and shrubs on the boundaries, tree and shrub planting in woodland groups and on margins and new hedgerows once restoration has taken place. The plan shall show the species, sizes, spacing, position of all new planting and details of their protection, and any planting that fails in the aftercare period shall be replanted. Any landscaping plan that is approved shall be implemented before working takes place in a subsequent phase.

    Reason: To enhance the landscape value of the restored land. (OMWCS C10)

75. Before work commences in any phase, after Phase 1, a scheme showing the direction of working, the height and extent of mineral stockpiles, lagoon locations and dimensions, depths of excavation and haul roads in that phase shall be submitted to and approved by the Mineral Planning Authority in writing and any that is approved shall be implemented.

    Reason: To ensure control of operations in the interests of the amenities of the area. (OMWCS C5)

<u>Hornton and Alkerton only</u>

76. In the area outlined in green on approved plan ALK/MP/A monitoring of dust shall be carried out in accordance with the approved dust monitoring protocol. This monitoring shall be undertaken continuously for a period of one month per quarter of a year, to include months when soil stripping or soil replacement is taking place.

    Reason: To ensure that dust levels are monitored. (OMWCS C5)

77. In the areas outlined in green on approved plans HORNT/W/RevC and ALK/MP/A the land shall be progressively restored to agriculture in accordance with the approved restoration schemes for those areas.

    Reason: To achieve restoration levels that match with the surrounding landscape. (OMWCS C8)

78. The aftercare of the land outlined in green on approved plans HORNT/W/RevC and ALK/MP/A shall be carried out in accordance with the respective approved aftercare schemes.

    Reason: To ensure that the restored land is brought back to its full agricultural potential. (OMWCS C6)

79. All fixed plant and machinery shall be removed from the areas outlined in green on approved plans HORNT/MP/C and ALK/MP/A, with the exception of land outlined in red on approved plan ASC 06.096 B, once working has ceased in that area and the

land shall be restored in accordance with agricultural restoration schemes approved by the Mineral Planning Authority.

Reason: To ensure that restoration takes place as quickly as possible. (OMWCS M10)

Alkerton Only

80. Between the hours of 0700 and 1800 on Mondays to Fridays and 0700 and 1300 hours on Saturdays, the noise levels arising from the operations in the area edged green on approved plan ALK/MP/A shall not exceed 55 dB LAeq 1 hr freefield when measured 2.5 metres from any noise sensitive location at Heath Farm or any other residential property in the vicinity of this area. If these noise limits are exceeded the working will stop until measures have been agreed in writing with the Mineral Planning Authority to ensure that noise limits are not exceeded.

    Reason: To reduce noise levels in the vicinity of the working area to acceptable levels. (OMWCS C5)

81. When workings come within 200 metres of Heath Farm, noise monitoring shall be carried out once every two months. The results shall be kept at the site office and shall be made available to the Mineral Planning Authority on request at all times that the quarry is in operation. If the noise levels exceed 55 dB LAeq 1 hr freefield when measured 2.5 metres from any noise sensitive location at Heath Farm, then working will stop until measures have been agreed in writing with the Mineral Planning Authority to ensure that noise levels are not exceeded.

    Reason: To reduce noise levels in the vicinity of Heath Farm to tolerable levels. (OMWCS C5)

82. The maximum area of that part of the site outlined in green on approved plan ALK/MP/A which at any time may be stripped of topsoil in advance of working, or under excavation, or excavated but not restored, shall not exceed 4.0 ha (excluding roadways, office and wheelwash, that shall not exceed 1.5 ha in area).

    Reason: To ensure that the maximum area is available for uses other than quarrying. (OMWCS C5)

83. On the area outlined in green on approved plan ALK/MP/A, soil stripping, excavation of minerals and restoration shall take place progressively from the western boundary and in accordance with the direction and phasing of working shown on approved plan ALK/W.

    Reason: To ensure proper working and restoration of the site. (OMWCS C5)

84. Mineral waste arising from quarrying in the area outlined in green on approved plan ALK/MP/A shall be levelled and graded in accordance with the restoration contours shown on approved plan 160118/rest5, and the restoration and aftercare shall be in accordance with plan KB-AQ/101c and Alkerton Quarry Restoration, Soil Placement and Aftercare Scheme Revised March 2018 (R2 Jan 2019).

    Reason: To achieve a satisfactory restoration. (OMWCS M10)

85. A screening bund, 3 metres in height, 13 metres wide across the base and 1 metre wide at the top with sides of slopes of 1 in 2 shall be constructed in the location as shown in green on approved plan ALK/W and marked as 'permanent bund' before

further working takes place in accordance with this permission. The bund shall be seeded with grass seed within six months of its construction and shall be kept weed-free. The screen bund shall be removed and used in restoration on completion of working in the area.

Reason: To screen Heath Farm from noise, dust and visual intrusions. (OMWCS C5)

86. The sole vehicular access for the working of the area outlined in green on approved plan ALK/MP/A shall be in the location marked 'ramp to temp facilities' on approved plan ALK/W.

Reason: To secure a safe access to the quarry. (OMWCS C10)

87. The layout and access of the area outlined in green on approved plan ALK/MP/A shall be maintained as per the approved plans.

Reason: To maintain a safe access to the quarry. (OMWCS C10)

88. Working of land outlined in green on approved plan ALK/MP/A shall only take place in accordance with the approved plan ALK/W.

Reason: To ensure that the working is carried out as proposed. (OMWCS C5)

89. Pegs showing the working margins in the areas outlined in green on approved plan ALK/MP/A shall be maintained in the positions shown on the approved plan (ref: SRL/1-15 (wm)) for the duration of operations in this phase.

Reason: To ensure that workings do not encroach beyond the permitted boundaries. (OMWCS C5)

Wroxton only

90. No vehicular access direct onto the Horley road, or other local roads, shall be obtained from areas, 3, 4 and 6 as shown on approved plans 054/P/02 and 054/P/03. No extraction shall take place in these areas until proposals for an internal haul road to the site access shown on approved plan 054/P/01 has been agreed by the Mineral Planning Authority in writing.

Reason: For the safety of users of local roads in the Wroxton area. (OMWCS C10)

Phase 1 only

91. All workings at Phase 1 shall be undertaken in accordance with the approved plans and documents: 'Discharge of Conditions Planning Permission 97/00430/CM Wroxton Fields Quarry' dated April 2002, including document titled 'Working Plan Restoration and Aftercare Schemes for Wroxton Fields Quarry' dated July 2002, document titled 'Wroxton Fields Quarry Dust Management Scheme' dated April 2002: Abingdon Consulting Engineers' drawing No. 01037/600, Edge and Pritchard drawings 081204/1 and 081204/2, Mark Pritchard Limited Drawing WFQ/PBL/2a, GPP/PBL/WF/08/02, Wroxton Restoration 2, Wroxton Restoration 2x (sheet1) and Wroxton Restoration 2x (sheet2).

Reason: In order to properly control mineral working within the site. (OMWCS C5)

92. Noise monitoring and control at Phase 1 shall be undertaken in accordance with the approved plans and details: Annex C of document titled 'Draft Noise Assessment Ironstone Extractions at Wroxton, Peter Bennie Ltd', dated July 2002.

Reason: To ensure noise levels in the vicinity of the working area are acceptable. (OMWCS C5)

93. At Phase 1 all working shall take place in accordance the approved dust management scheme, ref: 'Wroxton Fields Quarry Dust Management Scheme for Peter Bennie Ltd – R502-R01a/final' dated July 2002 and 'Wroxton Fields Quarry Baseline Dust Monitoring' for Peter Bennie Ltd – R502-R02/final, dated Oct 2002, specifically:

(i) dust monitoring locations are those that are shown on drawing 001 – Dust Monitoring Locations (which forms part of R502-R01/final);

(ii) frequency of sampling – dust sampling and analysis shall be undertaken on a monthly basis. The frequency of sampling shall be subject to review by the Mineral Planning Authority depending on the consistency and magnitude of the results obtained;

(iii) dust suppression measures from operations on site – dust suppression measures shall be undertaken in accordance with section 5, R502-R01a/final;

(iv) dust levels that must not be exceeded at the dust monitoring locations:
- the dust deposition rate per day must not exceed 2.5 times the average daily background dust deposition rate (the average dust deposition rate will be taken as that shown in table 4.1 of R502-R02/final); and
- effective area coverage shall not exceed 0.5% at the dust monitoring locations (see table 4.1 of R502-R02/final); and

(v) mitigation measures – if any operations are identified as causing or likely to cause visible emissions across the site boundary or if abnormal emissions are observed within the site, then those operations will be immediately suspended until either effective remedial action can be taken or the weather conditions giving rise to the emissions have moderated.

Reason: To ensure that dust pollution is not a problem for residents close to the site. (OMWCS C5)

94. In Phase 1 all restoration shall be undertaken in accordance with the approved landform restoration scheme ref: 'Discharge of Conditions Planning Permission 97/00430/CM Wroxton Fields Quarry', dated April 2002, including document titled 'Working Plan, Restoration and Aftercare Schemes for Wroxton Fields Quarry for Peter Bennie Ltd' dated July 2002, and Edge and Pritchard drawing No. 4, and letter dated 22.07.02.

Reason: To ensure the most successful restoration possible. (OMWCS M10)

95. Access to Phase 1 shall be formed and used in accordance with the approved plans, ref: Abingdon Consulting Engineers' drawing no. 01037/600.

Reason: For the safety of users of the highway. (OMWCS C10)

96. Landscaping at Phase 1 shall be completed in accordance with approved plans an details ref: 'Discharge of Conditions, Planning Permission 97/0043/CM Wroxton

Fields Quarry' dated April 2002, Edge and Pritchard drawing No. 4 and Mark Pritchard drawing No. WFQ/PBL/2a.

Reason: To ensure the land is appropriately landscaped. (OMWCS C8)

97. In Phase 1 development shall not be completed other than in accordance with the approved plans and details ref: 'Discharge of Conditions Planning Permission 97/00430/CM, Wroxton Fields Quarry', dated April 2002, Edge and Pritchard drawing No. 4 and Mark Pritchard drawing No. WFQ/PBL/2a.

    Reason: To ensure control of operations in the interests of the amenities of the area. (OMWCS C5)

Phases 1 and 2 only

98. Noise levels from quarrying, at phases 1 and 2, shall not exceed:

    47 dB LAeq 3.5m from any dwelling in the village of Wroxton;
    45 dB LAeq 3.5m from any other dwelling;
    averaged over a period of 5 minutes between 0700-0800; and averaged over a period of 1 hour for all other times when quarrying is permitted.

    Reason: To protect residents from noise intrusion. (OMWCS C5)

Phase 2 only

99. Before any development commences in Phase 2, a scheme of noise monitoring shall be agreed by the Local Planning Authority, which will include provision for monitoring, in particular, between 0700 and 0800 weekdays, and on Saturday mornings.

    Reason: To reduce noise intrusion in the area. (OMWCS C5)

Informative

Please note the attached document entitled 'Oxfordshire Lorry Routes' which has been designed by OCC Highways as an aid to operators and drivers in selecting the most appropriate route for HGV traffic (avoiding unnecessary movement on less suitable roads).

Schedule 2 - Relevant Development Plan Policies

Oxfordshire Minerals and Waste Local Plan Part 1 – Core Strategy (OMWCS)
M10, C1, C5, C7, C8 and C11.

Cherwell Local Plan 2031, including saved poliices of the Cherwell Local Plan 1996 (CLP)
PSD1, ESD 10, ESD 13, ENV1

Informative

In accordance with paragraph 38 of the NPPF Oxfordshire County Council takes a positive and creative approach and to this end seeks to work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. We seek to approve applications for sustainable development where possible.
We work with applicants in a positive and creative manner by;

- offering a pre-application advice service, and
- updating applicants and agents of any issues that may arise in the processing of their application and where possible suggesting solutions. In this case there was an opportunity to improve the links to the wider rights of way network which resulted in amendments to the plans prior to the decision being made.

OXFORDSHIRE COUNTY COUNCIL

Town and Country Planning Act, 1990

Town and Country Planning (Development Management Procedure) (England) Order 2015

CONDITIONAL PLANNING PERMISSION

To: AT Contracting Ltd, AT Contracting Ltd, Ate Barn, Moorbarns Lane, Lutterworth, LE17 4JD

Location of land: Alkerton Quarry, Rattlecombe Road, Alkerton with Shennington

Brief particulars of proposed development: The modification of the approved restoration scheme through importation of inert soil material for nature conservation afteruses and the erection of 18 single storey holiday lodges with associated landscaping and car parking

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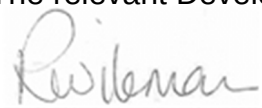
Application No: MW.0124/21 District Council Ref. No. 21/03562/CM

The OXFORDSHIRE COUNTY COUNCIL as County Planning Authority hereby GRANT PLANNING PERMISSION for this development SUBJECT TO the conditions set out in the attached Schedule 1.

The reasons for the imposition of the conditions are as set out in the attached Schedule 1.

The relevant Development Plan policies are set out in the attached Schedule 2.



Director of Planning, Environment and Climate Change

Dated 09/11/22

YOUR ATTENTION IS DRAWN TO THE NOTES OVERLEAF

Notes

IMPORTANT

- This permission does not convey or imply any approval or consent which may be required under any enactment, byelaw, order or regulation other than section 57 of the Town and Country Planning Act 1990.
- The submitted environmental information was taken into consideration in making this decision.
- Application for approval under the Building Regulations must be made to the Council for the district in which the land is situated.

Appeals to the Secretary of State

- If you are aggrieved by the decision of the County Planning Authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990.
- If you want to appeal, then you must do so within six months of the date of this notice, however if an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against the County Planning Authority's decision on your application then you must do so within: 28 days of the date of service of the enforcement notice, or within 6 months of the date of this notice, whichever period expires earlier using a form which you can get from the Secretary of State at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN (Tel: 0303 444 5000) or online at https://www.gov.uk/planning-inspectorate
- The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.
- The Secretary of State need not consider an appeal if it seems to him that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.
- If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. Further details are on GOV.UK.

Purchase Notices

- If either the County planning authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.
- In these circumstances, the owner may serve a purchase notice on the Council of the District in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

Schedule 1 - Conditions

1. The development shall be carried out strictly in accordance with the particulars of the development, plans and specifications contained in the application except as modified by conditions of this permission. The approved plans comprise:

   - Application Form dated 30/09/2021
   - Planning Statement dated 30/09/21
   - Location Plan Figure P1 dated Jan 21
   - The Site Boundary and Area Under the Control of The Applicant Figure P2 dated Sept 2021
   - Arboricultural Statement dated August 2021
   - Landscape and Visual Assessment dated September 2021
   - Air Quality Assessment dated Sept 2021
   - LF Acoustics Noise Assessment dated Sept 2021
   - Ecological Impact Assessment dated August 2021
   - Hydrological Assessment Appendix TR2 Revision A Document Reference 4919-CAU-XX-XX-RP-O-0301.A1.C1
   - Transport Statement dated Sept 2021
   - Illustrative Cross Sections of Site and Revised Restoration Scheme Figure P6 dated August 2021
   - Topographic Site Survey Figure P3 dated Jan 2021
   - Eco Lodge Elevations Figure P3 1 dated Oct 2021
   - Eco Lodge Elevations Figure P3 2 dated Oct 2021
   - Eco Lodge Elevations Figure P3 3 dated Oct 2021
   - Regulation 25 response on Biodiversity Matters dated 14/01/22
   - Regulation 25 response on Groundwater dated 14/01/22
   - Regulation 25 response on Landfill Impacts dated 14/01/22
   - Regulation 25 response on Landscape Matters dated 14/01/22
   - Illustrated Layout of Swale Drainage Routes and SUDS Piped Connections Drawing No AL1198-D15v2 (Rev A) dated January 2022
   - Tourism Market Appraisal dated February 2022
   - Email from Rick Bright to Mary Hudson dated 24/03/2022 confirming site office dimensions
   - Comparison of Landforms, Site Conditions and Site Operation Figure P4 (Rev A)
   - Additional Information and Clarification Report dated 14/01/22
   - Revised Restoration Scheme Figure P5 Revision C
   - Letter reference 4919-CAU-XX-XX-CO-0-9102.A0.C2, dated 11 May 2022, prepared by Caulmert Limited

   Reason: To ensure that the development is carried out as proposed.

2. The development to which this permission relates shall be begun not later than the expiration of three years beginning with the date of this permission.

   Reason: In accordance with Section 91 to 95 of the Town and County Planning Act 1990 as amended by section 51 of the Planning and Compulsory Purchase Act 2004.

3. Importation and deposit of inert waste shall cease within three years of the date of the commencement of the development.

   Reason: In view of the temporary nature of the development and to allow the timely restoration of the site (OMWCS M10).

4. All plant and machinery associated with waste importation or waste deposit shall be removed from the site and the site shall be restored within 12 months of the cessation of waste disposal. The planting shown on approved Restoration Scheme Figure P5 Revision C shall be implemented in the first planting season following the completion of soil spreading.

   Reason: In view of the temporary nature of the development and to allow the timely restoration of the site (OMWCS M10).

5. No waste importation or waste deposit shall commence until a detailed Aftercare Scheme has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall:
   a) Provide an outline strategy for the five-year Aftercare period in accordance with Paragraph 057 of Minerals Planning Practice Guidance. This shall specify the steps to be taken and phasing in the management of the land to promote its rehabilitation to the target afteruse; including:
   - A map identifying clearly all areas subject to aftercare management,
   - An annual meeting between the developer, the Minerals Planning Authority and other interested parties,
   - Timing and pattern of vegetation establishment, with cultivation practices and secondary treatments,
   - Management of any livestock, soil, fertility, weeds and pests
   - Establishment of hedgerows, trees and other surface features,
   - Remedial surface and piped drainage systems, irrigation and watering, and

   b) Provide for a detailed annual programme, in accordance with Paragraph: 058 of Minerals Planning Practice Guidance, to be submitted to the Mineral Planning Authority not later than two months prior to the annual Aftercare meeting.

   Aftercare shall be carried out in accordance with the approved scheme.

   Reason: To ensure a high-quality restoration (OMWCS M10).

6. The Mineral Planning Authority shall be notified in writing of the date of the commencement of this development, within two weeks of that date.

   Reason: In view of the temporary nature of the development, to ensure that conditions can be monitored to ensure timely restoration (OMWCS M10).

7. Records of the volume and tonnage of imported waste material shall be kept and provided in writing to the Mineral Planning Authority within 7 days of such a request being made.

   Reason: To ensure that the development is carried out as proposed and conditions limiting annual import of material can be monitored to ensure HGV movements are acceptable (OMWCS C10).

8. No more than 60 000 tonnes of waste material shall be imported to the site in any one year starting from the date of commencement of the development

   Reason: To ensure that the development is carried out as proposed and HGV movements do not cause unacceptable amenity impacts on the A422 (OMWCS C10).

9. No more than 150 000 tonnes of waste material shall be imported to the site in total.

   Reason: To ensure that the development is carried out as proposed and HGV movements do not cause unacceptable amenity impacts on the A422 (OMWCS C10).

10. No operations, including waste disposal, restoration, construction or HGVs entering and leaving the site, shall be carried out at the site except between the following times:

    7.00 to 18.00 Mondays to Fridays
    7.00 to 13.00 Saturdays.

    No operations shall take place on Sundays, Public or Bank Holidays.

    Reason: To protect the amenity of local residents in Alkerton and other nearby properties (OMWCS C5).

11. Noise levels arising from the development shall not exceed 55 dB LAeq, 1 hour, free field when measured 2.5 metres from any noise sensitive location at Heath Farm. If this noise limit is exceeded, operations shall stop until measures have been agreed in writing with the Mineral Planning Authority to ensure that noise levels are not exceeded.

    Reason: To ensure that the development does not cause an unacceptable noise impact at nearby properties (OWMCS C5).

12. The noise levels arising from temporary operations for construction and removal of bunds shall not exceed 65 dB(LAeq) (1 hour free field) measured 2.5 metres from Heath Farm or any other noise sensitive location in the vicinity of the site. If this noise limit is exceeded, operations shall stop until measures have been agreed in writing with the Mineral Planning Authority to ensure that noise levels are not exceeded. The temporary operations shall not occur for more than 28 days at one time with a gap of at least 28 days between each such period of temporary operations and for no more than 8 weeks per calendar year in total. Records of the dates of temporary working operations shall be kept and be provided in writing to the Mineral Planning Authority within 7 days of such a request being made.

    Reason: To ensure that the development does not cause an unacceptable noise impact at nearby properties (OWMCS C5).

13. Noise from typical site operations shall be monitored every 2 months throughout the duration of the restoration operations, in accordance with the noise monitoring methodology set out in Section 4 of the approved LF Acoustics Noise

Assessment dated Sept 2021. A monitoring report shall be submitted to the Mineral Planning Authority within 2 weeks of any request.

Reason: To ensure that the development does not cause an unacceptable noise impact at nearby properties (OWMCS C5).

14. No reversing bleepers or other means of audible warning of reversing vehicles shall be fixed to, or used on any vehicles, plant and machinery, other than those which use white noise.

    Reason: To protect the amenity of residents in Alkerton (OWMCS C5).

15. No development shall commence until a Dust Management Plan has been submitted to the Mineral Planning Authority and approved in writing. The submitted plan shall:
    - Set out the mitigation approaches, including the option to temporarily cease activities, that would be taken at different levels of dust generation both in and out of operational hours
    - Include a clear mechanism for monitoring and responding to complaints.

    Any plan approved shall be implemented in full.

    Reason: To ensure that dust does not impact on amenity or health (OMWCS C5).

16. No development shall commence until a scheme showing how retained trees and hedgerows will be protected during restoration and construction works has been submitted to the Mineral Planning Authority and approved in writing. The approved scheme shall be implemented in full.

    Reason: To ensure that retained trees and hedgerows are protected in the interests of landscape, amenity and biodiversity (OMWCS C5).

17. No topsoil or subsoil handling shall take place during and shortly after significant rainfall or when there are puddles on the soil surface.

    Reason: To protect the soil resource and enable a high-quality restoration (OMWCS C6, M10).

18. No mud or debris shall be deposited on the public highway.

    Reason: In the interest highway safety (OMWCS C10).

19. No loaded vehicles shall enter or leave the site unsheeted .

    Reason: In the interest highway safety (OMWCS C10).

20. The access and haul road shall be maintained to ensure a smooth-running surface free of potholes and kept free of mud and other debris at all times until completion of site restoration. Any temporary access roads, not retained on the approved drawing Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges Figure P5 (Rev C), shall be removed when no longer required for the purposes of accessing the site for the purposes of the development or during the course of site restoration, whichever is sooner.

Reason: To reduce noise in the interests of local amenity and to prevent mud and debris being carried onto the public highway (OMWCS C10).

21. No development shall commence until a detailed landscaping scheme has been submitted to and approved in writing by the Mineral Planning Authority. The scheme shall be in accordance with approved drawing Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges, Figure P5 (Rev C), version 8 and shall include the following details:

    a) existing and proposed vegetation,
    b) Sustainable Urban Drainage (SUDS) where this forms part of the overall landscape scheme;
    c) proposed finished levels or contours;
    d) means of enclosure;
    e) vehicle and pedestrian access and circulation areas;
    f) hard surfacing materials;
    g) structures and minor artefacts (e.g. furniture, play equipment, refuse or other storage units, signs, lighting etc.);
    h) soft landscape proposals.

    Soft landscape works shall include planting plans and plant specifications noting species, plant sizes and proposed numbers/densities where appropriate as well as seed mixes and their provenance. In addition, information on implementation and ongoing maintenance shall be provided.

    The development shall thereafter be carried out in accordance with the approved details and all planting, seeding or turfing shall be carried out in the first planting season following the completion of the development. Any trees plants or areas of turfing or seeding which, within a period of 5-years from the completion of the restoration die, are removed, or become seriously damaged or diseased, shall be replanted in the next planting season.

    Reason: In the interests of visual amenity, biodiversity and to create a high-quality environment (OMWCS policies C7, C8)

22. No lighting shall be erected at the site until such time as details of the lighting have been submitted to and approved in writing by the Mineral Planning Authority. The lighting scheme shall ensure that lighting is kept to a minimum and shall include details of the location, height, type, colour temperature and direction of all light sources, including intensity of illumination. Any lighting which is so installed shall not thereafter be altered without the prior consent in writing of the Mineral Planning Authority.

    Reason: To minimise light pollution, to protect the dark skies and to protect notable and protected species from the effects of lighting in accordance with policies ESD9, ESD10 and ESD13 of the Cherwell Local Plan and WOMCS policies C7 and C8.

23. No development shall take place until a Landscape Ecological Management Plan (LEMP), accompanying biodiversity metric and figures have been submitted to and approved in writing by the Mineral Planning Authority. This shall include details on how the retained and proposed habitats will be managed, created

and/or monitored to deliver the target conditions proposed within the timescales given, and how the habitats and proposed ecological features will be managed for the benefit of wildlife. The content of the LEMP shall include the following:

1) Review of site potential and constraints;
2) Purpose and conservation objectives for the proposed works;
3) Detail design(s) and/or working method(s) to achieve the stated objectives;
4) Extent and location/area of proposed works on appropriate scale maps and plans with an accompanying metric;
5) Type and source of materials to be used where appropriate;
6) Timetable for implementation;
7) Details of initial aftercare and long-term maintenance of ecological habitats;
8) Details for monitoring and remedial measures;
9) Persons responsible for implementing the works;
10) Preparation of a work schedule (including an annual work plan capable of being rolled beyond the restoration period to the 20 year long term management);
11) Details of the body or organisation responsible for implementation of the plan.

Any plan that is approved must be fully implemented and no work shall take place other than in accordance with the approved plan.

Reason: To ensure that the site is restored and managed appropriately (OMWCS C7 and M10).

24. No development shall commence until details of improvements to the rights of way within the site have been submitted to the Mineral Planning Authority and approved in writing. The approved details shall be implemented within the timescales set out in the approved scheme.

    Reason: To ensure that the rights of way are improved and not adversely impacted (OMWCS C11).

25. Rights of way on site shall be kept clear of obstructions during the infilling operations.

    Reason: To ensure that rights of way are not adversely impacted (OMWCS C11).

26. A local liaison meeting shall take place for this site in accordance with details which have been submitted to the Mineral Planning Authority and approved in writing, prior to the commencement of development.

    Reason: To ensure good liaison between the operator and the local community, in the interests of protecting local amenity and addressing any concerns (OMWCS C5)

27. The access arrangements and vision splays, shown in Annex E to the approved Transport Statement LB/210062/TS/2, shall be maintained for the duration of the development.

    Reason: In the interests of highway safety (OMWCS C10).

28. No development shall commence until a detailed Surface Water Drainage Plan has been submitted to the Mineral Planning Authority and approved in writing. The approved scheme shall be implemented in full.

    Reason: To ensure that there are no adverse impacts on the water environment (OMWCS C4).

Eco-Lodge Development

29. No construction of the eco-lodges shown on approved plan Revised Restoration Scheme Figure P5 Revision C shall commence until a Construction Management Plan has been submitted to the Mineral Planning Authority and approved in writing. The plan shall include:
    - Hours of construction;
    - Traffic management details;
    - Measures to minimise noise and disturbance.

    Any plan that is approved shall be implemented in full.

    Reason: To ensure that the construction of the eco-lodges does not harm local amenity (OMWCS C5) .

30. Prior to first occupation of the eco-lodges, full details of locations and specifications of electric vehicle charging points shall be submitted to the Mineral Planning Authority and approved in writing, and the approved EV charging points shall be provided in accordance with the approved details.

    Reason: To ensure that the development is carried out as approved and in order to reduce carbon emissions and adverse impacts on air quality associated with the development (OMWCS C2).

31. No construction of eco-loges shall commence until full details including floorplans, locations within the site, elevations and materials have been submitted to the Mineral Planning Authority and approved in writing. No eco-lodge construction shall take place other than in accordance with the approved details.

    Reason: To ensure that the development is acceptable in terms of detailed design and does not have an adverse impact on the landscape (OMWCS C8).

32. The eco-lodges hereby approved shall be used only for holiday accommodation and not for residential use.

    Reason: To ensure that the development is carried out as proposed and there are no additional impacts on landscape, highways or biodiversity (OMWCS C5).

33. Occupancy records of the eco-lodge accommodation shall be provided in writing to the Mineral Planning Authority within 14 days of any request being made in writing.

    Reason: To ensure that the use of the site can be monitored in order to ensure that the lodge are being used for holiday accommodation only (OMWCS C5).

34. In the event that the eco-lodge development is not implemented, or that it ceases, an alternative restoration plan shall be submitted to the Mineral Planning Authority within 12 months of the restoration of the quarry (if the lodge development is not implemented) or within 12 months of the cessation of the use. The alternative restoration plan shall show the part of the site proposed for eco-lodges to be restored to biodiversity or agriculture and shall include provision for ongoing management. Any scheme that is approved shall be implemented in full.

    Reason: To ensure the satisfactory restoration of the site (OMWCS M10).

35. No construction of the eco-lodges shall commence until details of the connection to the foul sewer including pumping rates and pipe capacity specifications have been submitted to the Mineral Planning Authority and approved in writing. Any plan approved shall be implemented in full.

    Reason: To ensure that there is no adverse impact on the water environment (OMWCS policy C4).

36. The development shall be carried out in accordance with the approved Illustrated Layout of Swale Drainage Routes and SUDS Piped drawing number AL1198-D15v2 (Rev A) dated January 2022 and the mitigation measures proposed within approved document letter reference 4919-CAU-XX-XX-CO-0-9102.A0.C2, dated 11 May 2022, prepared by Caulmert Limited.

    These measures shall be fully implemented prior to occupation and shall be retained and maintained thereafter throughout the lifetime of the development.

    Reason: To ensure that there is no adverse impact on the water environment (OMWCS policy C4).

Informatives

OCC consent is required for any works on the public highway.

A Groundwater Risk Management Permit from Thames Water will be required for discharging groundwater into a public sewer. Any discharge made without a permit is deemed illegal and may result in prosecution under the provisions of the Water Industry Act 1991. We would expect the developer to demonstrate what measures he will undertake to minimise groundwater discharges into the public sewer. Permit enquiries should be directed to Thames Water's Risk Management Team by telephoning 020 3577 9483 or by emailing trade.effluent@thameswater.co.uk . Application forms should be completed on line via www.thameswater.co.uk. Please refer to the Wholesale; Business customers; Groundwater discharges section.

Thames Water will aim to provide customers with a minimum pressure of 10m head (approx. 1 bar) and a flow rate of 9 litres/minute at the point where it leaves Thames Waters pipes. The developer should take account of this minimum pressure in the design of the proposed development.

Nesting Birds

All bird nests, eggs and young are protected under the Wildlife & Countryside Act 1981 (as amended) which makes it illegal to intentionally take, damage or destroy the nest of any wild bird while it is use or being built. Therefore, no removal of vegetation should take place between 1st March and 31st August inclusive to prevent committing an offence under the Act. Should any works commence within this period, the vegetation must first be surveyed for the presence of nesting or nest-building birds by a suitably qualified ecologist.

In accordance with paragraph 38 of the NPPF Oxfordshire County Council takes a positive and creative approach and to this end seeks to work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. We seek to approve applications for sustainable development where possible.
We work with applicants in a positive and creative manner by;

- offering a pre-application advice service, and
- updating applicants and agents of any issues that may arise in the processing of their application and where possible suggesting solutions. For example, in this case further information was requested on a range of topics, to overcome concerns raised during the first consultation period. The applicant also revised the proposed restoration scheme.

Schedule 2 - Relevant Development Plan Policies

Oxfordshire Minerals and Waste Local Plan

- M10 - Restoration of Mineral Workings
- W6- Landfill and other permanent deposit of waste to land
- C1 - Sustainable Development
- C2 - Climate Change
- C3 - Flooding
- C4 - Water Environment
- C5 - Local Environment, Amenity & Economy
- C6 – Agricultural Land and Soils
- C7 - Biodiversity and Geodiversity
- C8 – Landscape
- C10 - Transport
- C11 - Rights of Way

Cherwell Local Plan 2031 Part 1 (CLP)

- PSD1 – Presumption in Favour of Sustainable Development
- SLE 3 – Supporting Tourism Growth
- ESD 3 – Sustainable Construction
- ESD 7 – Sustainable Drainage Systems
- ESD 8 – Water Resources
- ESD 10 – Biodiversity and the Natural Environment
- ESD 13 – Local Landscape Protection

Cherwell Local Plan 1996 (Saved Policies) (CLP 1996)

- C7 – Landscape Conservation
- C28 – Layout, Design and Appearance of New Development
- ENV1 – Development likely to cause detrimental levels of pollution

APPENDIX 2

Oxfordshire County Council Pre-Application Advice Letter, ref. PRE-0088/21-(July 2021)

OXFORDSHIRE COUNTY COUNCIL

Environment and Place
County Hall
New Road
Oxford
OX1 1ND

Rick Bright,
Bright & Associates

Sent by email

Bill Cotton
Corporate Director for Environment and Place

Date: 16th July 2021
My ref: PRE.0088/21

Dear Rick,

Site details: Alkerton Quarry, Banbury, Oxfordshire

Description of proposed development: Pre-application advice on modified restoration scheme with nature conservation and eco-tourism afteruse.

Thank you for your request for pre-application advice dated 11th June 2021.

The comments below are offered without prejudice to the determination of a future planning application for this development. Such an application would be assessed on its merits against the development plan and other material considerations at the time of submission.

Proposals

A new restoration plan is proposed to replace the currently approved restoration plan for Alkerton Quarry.

Under the current restoration plan, approved in 2019, the site was due to be restored at the lower level to agricultural use and rough grassland by 2020. It is proposed to modify the approved restoration scheme to allow the importation of inert soil material to achieve an acceptable landform. It is proposed to import 150 000 tonnes of inert material over three years, to create a low-level restoration with improved drainage.

Following the completion of waste importation and deposit, there would be a nature conservation afteruse with eco-tourism. A 5-hectare nature reserve would be created in the southern part of the site, including areas of grassland, scrub, wetland and bare

ground. It would also include a bat and barn owl roost shed. Existing hedgerows would be strengthened, and a new hedgerow created. It is proposed to locate 18 holiday chalets on the northern part of the site. These would be spread out on a grassland with woodland areas.

In the course of the waste deposit, the small quantity of ironstone remaining at the site would be removed under an existing ROMP consent (Ref 97/00430/CM).

The information provided states that the modified restoration scheme would include the removal of the remnant quarry face and the return of a public footpath to its definitive route. There would be a gated access to the holiday chalets and nature reserve from the existing site access onto Rattlecombe Road.

The Site

The application area is approximately 1.2 km (0.8 miles) south of the Cotswolds Area of Outstanding Natural Beauty (AONB), which is contiguous with the county boundary with Warwickshire and the western edge of the A422/ Stratford Road at that point. Balscote Quarry, a Local Wildlife Site, lies approximately 260 metres south of the application area, but there are no designated wildlife sites adjacent. There is an adjacent old landfill to the western edge of the site, which may need to be taken into consideration as regards to final landform/ landscape.

The site area is bisected by a footpath (418/6/10), which crosses the northern half of the unrestored area, approximately 20 to 50 metres south of and parallel to the previously restored triangle of former mineral working within the red-line area. This footpath merges with the public right of way which runs along the western boundary of the site. Footpath (418/12/30) runs south from footpath (418/6/10), while footpath (418/12/10) runs north. A further right of way, footpath (339/7/10) runs west from the western boundary of the application site accessed via footpath (418/12/10). The d'Arcy Dalton Way, a long-distance footpath, is approximately 500 metres north of the application site, running along bridleway (255/5/10) at that point.

The application site lies entirely within Flood Zone 1, which is the lowest of flood risk areas. The closest residential properties are approximately 10m to the south-east of the application site, with the villages of Alkerton and Shennington approximately 800m and approximately 1.3km (1 mile) west of the application site respectively.

The quarry has largely been worked out. The northern tip of the workings was partially restored 14 years ago. The land that has had restoration carried out consists of mainly rough grassland and gorse and covers an area of approximately 2.9 ha. The remainder of the quarry, approximately 7.9 ha remains unrestored, despite an approved restoration plan.

The approved restoration scheme is to a low-level agricultural after use, with rough grassland with perimeter scrub and native hedgerows. The revised restoration, which was approved 21 November 2019, was due to be carried out 2019/ 2020. This has not been done and the open extraction area, remains unrestored.

It is understood that the site was last worked mid-2020, when the mineral beneath the haul road was removed, making implementation of the approved restoration scheme impossible.

Planning History of the site (applications determined by Oxfordshire County Council):

Application 97/00430/CM (MW.003/99b) was submitted January 1997. The application was part of a Review of Old Mineral Permission (ROMP) to consider the conditions attached to the extant permissions for the quarries at Balscote-Hornton-Wroxton and Alkerton. These were for all areas under the same applicant's control with Alkerton Quarry identified as south of Area 5. This permission was issued in January 1999. This specified that mineral extraction is to cease by 21 December 2042, restoration to be completed by 21 December 2043 and aftercare to be completed by 21 December 2048. This application has now been superseded.

Application 01/01478/CM (MW.023/01) was submitted in July 2001. This application was for non-compliance with condition 98, to allow an area greater than 0.5 ha for operational land (excluding roadways, offices and wheel wash) and variation of working plan approved under condition 105 of planning permission referenced 1899/9/3, 1899/9/9, 1899/40009/11 and 1899/40009/12 at Alkerton Quarry, Banbury. This permission was issued in January 2002 and has now been superseded.

Application 12/01365/CM (MW.0113/12) was submitted in July 2012. This was to vary conditions 35, 40, 41, 98 and 99 of 12/00056/12 (MW. 0011/12), relating to the restoration and direction of working (condition 98) and to allow for effective drainage. The permission was issued in November 2012 and has now been superseded.

Application 13/01257/CM (MW.0108/13) was submitted in August 2013. This application was to allow for the implementation of an updated restoration scheme, by varying condition 109 of 12/01365/CM (MW.0113/12). This application was refused in October 2013, as it was considered that it was not a variation of the original condition as it was an application to import waste, which is not part of the original application. There was also insufficient information to demonstrate there would be no harm from the development to the environment or local amenity.

Application 19/00407/CM (MW.0020/19) was submitted in February 2019. This application was a Section 73 application to vary condition 99 of planning permission ref 12/01365/CM (MW.0113/12); to relocate the ephemeral pond. This permission was issued in November 2019 and is the current planning permission.

Pre-application advice was issued on 8th February 2021 for an earlier version of the proposals for a revised restoration scheme, under reference PRE.0010/21.

Advice

A full planning application would be required for the proposed development.

It is understood that operations on site have made it impossible to comply with the existing approved restoration plan. In this case, a new application for an amended restoration plan is required and this should be submitted as soon as possible to regularise the planning status of the site. The proposals that are subject to this pre-application advice request would require a full application. It is possible that an alternative scheme without the importation of inert waste could be applied for via a Section 73 application.

The main local concerns are highways impacts and drainage.

The current proposals would involve import of a lesser amount of waste and therefore fewer HGV movements, compared to an earlier version of the amended restoration scheme on which we provided a Scoping Opinion on in April 2021. However, it would still represent an increase in HGV movements compared to the currently permitted scheme, which uses on-site restoration materials only. Oxfordshire County Council would not support any additional lorry movements through Drayton and Wroxton, which is not a designated lorry route.

Mineral Policies

OMWCS policy M5 states that permission for working of ironstone for aggregate use will not be permitted except in exchange for an agreed revocation (or other appropriate mechanism to ensure the non-working) without compensation of an equivalent existing permission in Oxfordshire containing potentially workable resources of ironstone and where there would be an overall environmental benefit.

It is proposed to extract small quantities of ironstone as part of the development; however this would be within the area covered by an old mineral permission (ROMP) and therefore the ironstone extraction element already has permission.

OMWCS policy M10 states that mineral workings shall be restored to a high standard and in a timely and phased manner to an after-use that is appropriate to the location and delivers a net gain in biodiversity. It contains a checklist of factors which should be taken into account in designing the restoration and afteruse.

The importation of inert waste would delay the final restoration of the site. However, the delay would only be three years and so it is considered that if the proposals are otherwise acceptable, this is unlikely to conflict with the requirement in policy M10 for quarries to be restored in a timely manner.

The overall restoration date for the wider ROMP area, which includes Alkerton Quarry, does not require final restoration until 31 December 2042. However, sites should comply with policy M10 by being restored in a timely manner, following mineral extraction. As Alkerton has essentially been worked out of available mineral, the site should now be restored. If the approved restoration plan is not possible to implement, then a further revised restoration scheme needs to be submitted as soon as possible.

Waste Policies

The proposal to restore the site using imported inert waste would be considered against OMWCS waste policies.

OMWCS policy W6 states that priority will be given to the use of inert waste that cannot be recycled as infill material to achieve the satisfactory restoration and after use of active or unrestored quarries. Permission will not otherwise be granted for development that involves the permanent deposit or disposal of inert waste on land unless there would be overall environmental benefit. Policy W6 offers some support for the proposal to use inert waste to restore the quarry, as long as the inert waste deposited could not be recycled.

However, although the quarry is currently unrestored, it is subject to restoration conditions and has an approved restoration scheme which does not require the importation of inert waste. The disposal of waste has the potential to cause environmental impacts including on highways and residential amenity. Therefore, we would assess any application carefully to determine whether the proposed importation of waste was necessary to achieve an acceptable restoration at the site. The application should seek to demonstrate why the proposed amendments to the restoration scheme would be necessary and beneficial. It should also demonstrate that potential adverse impacts could be effectively mitigated. The proposals will not comply with OMWCS policy W6 if it is considered that the quarry can be satisfactorily restored without the disposal of inert waste and it is relevant that the currently approved restoration plan did not involve inert waste and was found to be acceptable when it was approved.

Other OMWCS policies

Oxfordshire Minerals and Waste Local Plan Part 1 (Core Strategy) (OMWCS) also contains a set of core policies, relevant to minerals and waste development. These include policy C5 which expects proposals for minerals and waste development to demonstrate that they will not have an unacceptable adverse impact on the local environment, amenity, and economy including through visual intrusion and light pollution amongst other things.

OMWCS policy C7 which states that waste developments should conserve biodiversity and where possible, provide a net gain. If development would result in significant harm, development will not be permitted if ecological harm cannot be avoided, adequately mitigated or, as a last resort,
compensated.

OMWCS policy C8 states that proposals for mineral and waste development shall demonstrate they respect and where possible enhance local landscape character.

OMWCS policy C10 states that minerals and waste development will be expected to make provision for safe and suitable access to the advisory lorry routes shown on the Oxfordshire Lorry Route Maps. The submitted information states that ‘some, but not all’ of the imported material would travel through Banbury and the villages of Drayton and Wroxton. This would be contrary to policies requiring suitable HGV access, including OMWCS policy C10 and also CLP 1996 policy TR10 which states ‘Development that would generate frequent HGV movements through residential areas or on unsuitable urban or rural roads will not be permitted. The Council will resist proposals for the

establishment of HGV operating centres where they would create traffic problems or adversely affect the amenity of residential areas or villages.' Therefore, the routes for HGVs importing any additional restoration to the site must be carefully re-considered prior to submitting an application.

Nature Reserve

A 5-hectare nature reserve is proposed as part of the restoration. We would require a commitment to the management of this reserve for a 20-year period following the end of the statutory 5-year aftercare period. This would be secured by a Section 106 legal agreement setting out the developer's obligations to fund the implementation of the approved management plan. Details will be needed about the proposed level of public access to the reserve, access for guests at the holiday accommodation and any provision for car parking. Careful consideration should be given to the balance between management for biodiversity and public access.

Due to the short timescales for the restoration of the site, as much information as possible should be provided with the planning application, rather than being left to be dealt with under conditions.

Eco-tourism accommodation

Applications for tourist accommodation would usually be determined by Cherwell District Council, as local planning authority. However, as this is proposed as part of the restoration of a quarry, Oxfordshire County Council would determine the application. Full details of the proposed restoration and afteruse should be provided, including elevations, materials and floorplans for the proposed cabins. You may wish to seek informal pre-application advice from Cherwell District Council as they will be a consultee on any application submitted and will have experience in applying policies to this type of development in rural areas.

CLP 2031 policy SLE3 supports proposals for new tourist facilities in sustainable locations, where they accord with other policies in the plan. Therefore, the application should seek to address the extent to which the proposed location is sustainable for a permanent tourism use.

Other relevant policies that the proposals would need to be assessed against include CLP 2031 ESD10 (biodiversity), ESD13 (landscape) and ESD17 (Green Infrastructure).

ESD10 states that in considering development proposals, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources, and by creating new resources. ESD13 states that opportunities would be sought to secure the enhancement and character of the local landscape and development will be expected to respect and enhance local landscape character. ESD17 states that the District's green infrastructure network will be maintained and enhanced through measures including protecting and enhancing existing sites and features forming part of the green infrastructure network and proposals should maximise the opportunity to maintain and extend green infrastructure links.

CLP 2031 policy SLE 3 states that all development proposals will be encouraged to reflect high quality design and high environmental standards, demonstrating sustainable construction methods. Examples are provided. The built development proposed for the site should demonstrate high quality design and sustainable construction methods, in order to comply with this policy.

CLP 1996 T7 (saved policy) states that proposals for the conversion of a suitable building beyond the limits of a settlement to self-catering holiday accommodation will be favourably considered providing that specified criteria are met. However, this policy relates to the conversion of existing buildings, rather than the construction of new buildings for self-catering accommodation. There does not appear to be a policy directly addressing the new construction of tourist accommodation in rural areas.

The rights of way team have pointed out that the location would allow for guests at the holiday accommodation to access a number of local attractions by foot and bicycle. Therefore, any proposals forthcoming for this development should be designed to encourage guests to use sustainable methods of transport as much as possible during their stay.

The holiday chalets would generate ongoing vehicle movements to the site, although following the construction period these would generally be cars rather than HGVs. It is considered that the generated vehicle movements, would have a negligible impact on the local highway network, given the close proximity to the A422. The site is in a location that is not sustainably accessible, but this is largely inevitable for a holiday destination of this nature.

AONB

The site is not located within an Area of Outstanding Natural Beauty (AONB) but might be visible from the Cotswolds AONB, which is only a short distance away. Therefore, any application which is submitted for this development must consider potential impacts on the AONB.

Development Plan Policies

Cherwell Local Plan 2031 Part 1

SLE 3 – Supporting Tourism Growth
ESD 3 – Sustainable Construction
ESD 7 – Sustainable Drainage Systems
ESD 8 – Water Resources
ESD10 – Biodiversity and the Natural Environment
ESD 13 – Local Landscape Protection
ESD15 – Character of the Built and Historic Environment
ESD 17 – Green Infrastructure

Cherwell Local Plan 1996 (Saved Policies)

C7 – Landscape Conservation
C8 – Sporadic Development in the Open Countryside
C9 – Scale of Development Compatible with a Rural Location
C28 – Layout, Design and Appearance of New Development
ENV1 – Development likely to cause detrimental levels of pollution

Oxfordshire Minerals and Waste Local Plan (OMWCS)

The following policies would be relevant to the determination of the application:

M5– Aggregate Minerals
M10 – Restoration of mineral workings
W6 – Landfill
C1 – Sustainable development
C2 – Climate Change
C3 – Flooding
C4 – Water environment
C5 – Local environment, amenity and economy
C6 – Agricultural land and soils
C7 – Biodiversity and Geodiversity
C8 – Landscape
C9 – Historic environment and archaeology
C10 – Transport
C11 – Rights of way

Other Material Considerations

National Planning Policy Framework (NPPF):
Particularly sections on meeting the challenge of climate change, sustainable transport, achieving well designed places, conserving and enhancing the natural environment and minerals.

National Planning Practice Guidance (NPPG):
Particularly the paragraphs on minerals, determining a planning application and natural environment.

National Planning Policy for Waste (NPPW)
Particularly paragraph 7 which states that in determining applications, waste planning authorities should ensure that landraising or landfill sites are restored to beneficial after uses at the earliest opportunity and to high environmental standards through the application of appropriate conditions where necessary.

Cotswolds AONB Management Plan
Although the site is located outside the AONB, Management Plan policies on Landscape (CE1), Local Distinctiveness (CE3), Tranquillity (CE4) and Dark Skies (CE5) might potentially also be of relevance depending on the design and its envisaged impacts.

Comments from Oxfordshire County Council teams

Transport Development Control

The previous proposal involved the importation of 450,000 m3 (in the region of 750,000 tonnes) of spoil from HS2 works. This latest proposal is for the import of 50,000 tonnes (~ 90,000 m3) of material per year for three years, which represents a significant reduction. However, the currently approved restoration scheme, as per MW.0113/12 and MW.0020/19, can be achieved by using soil already on the site. This is confirmed in the Supporting Statement to MW.0020/19, para. 4.1.1, which says "The new scheme does not require the importation of any restoration materials." This means that any associated HGV movements will be additional to the local highway network as they are not required to fulfil the current agreed scheme.

The Request for Screening and Scoping Opinion document says that "some, but not all" of the imported material will travel through Banbury and the villages of Drayton and Wroxton. OCC would not support any additional lorry movements on this route, which is not a designated lorry route, and they would be considered contrary to Policy TR10 of the Cherwell Local Plan, which states: "Development that would generate frequent HGV movements through residential areas or on unsuitable urban or rural roads will not be permitted. The Council will resist proposals for the establishment of HGV operating centres where they would create traffic problems or adversely affect the amenity of residential areas or villages".

Long term, the proposal is to establish a nature reserve and a development of 18 holiday chalets. It is considered that the generated vehicle movements, predominantly cars, will have a negligible impact on the local highway network, given the close proximity to the A422. The site is in a location that is not sustainably accessible, but this is largely inevitable for a holiday destination of this nature.

For more comprehensive Highways Advice, the Transport Development Control team offer a separate charged service: https://www.oxfordshire.gov.uk/residents/roads-and-transport/transport-policies-and-plans/transport-new-developments/pre-application-highway-advice

Drainage and flooding

A detailed Surface Water Management Strategy, in line with Oxfordshire Local Standards, will be required with the proposals to deal with water quality as well as flood risk, during restoration and in perpetuity.

The Non-statutory technical Standards for sustainable drainage systems were produced to provide initial principles to ensure developments provide SuDS in line with the NPPF and NPPG. Oxfordshire County Council have published the "Local Standards and Guidance for Surface Water Drainage on Major Development in Oxfordshire" to assist developers in the design of all surface water drainage systems, and to support Local Planning Authorities in considering drainage proposals for new development in Oxfordshire. The guide sets out the standards that we apply in assessing all surface

water drainage proposals to ensure they are in line with National legislation and guidance, as well as local requirements.

The SuDS philosophy and concepts within the Oxfordshire guidance are based upon and derived from the CIRIA SuDS Manual (C753), and we expect all development to come forward in line with these principles.

In line with the above guidance, surface water management must be considered from the beginning of the development planning process and throughout – influencing site layout and design. The proposed drainage solution should not be limited by the proposed site layout and design.

Wherever possible, runoff must be managed at source (i.e. close to where it falls) with residual flows then conveyed downstream to further storage or treatment components, where required. The proposed drainage should mimic the existing drainage regime of the site. Therefore, we will expect existing drainage features on the site to be retained and they should be utilised and enhanced wherever possible.

Space must be made for shallow conveyance features throughout the site and by also retaining existing drainage features and flood flow routes, this will ensure that the existing drainage regime is maintained, and flood risk can be managed appropriately.

Ecology

Overall, I am satisfied in principle with the proposals to amend the restoration, which will seek to ensure greater benefits for biodiversity than the approved scheme. The application proposals must demonstrate how the nature conservation value of the site is achieved and maintained, while being balanced with the requirements of the small-scale holiday chalets. Details must be presented to explain how harm from recreational impacts will be avoided.

An application must be supported by up to date ecological assessments to identify protected, notable and priority species, designated sites, important habitats and any other notable biodiversity features which may be directly or indirectly impacted. Habitat and species surveys should be undertaken in accordance with prevailing best practice guidance and carried out by suitably qualified personnel. The Chapter will include a desk study, with data obtained from the Thames Valley Environmental Records Centre (TVERC).

The EIA should answer the following questions:
• What species or habitats are involved;
• What is the population level (or area) likely to be affected by the proposal;
• What are the direct and indirect impacts of the proposal on Species or Habitats of Principal Importance;
• Is the impact necessary or acceptable, in consideration of the ‘avoid, mitigate, compensate’ hierarchy;
• What can be done to mitigate the impact; and
• Will a licence be required from Natural England?

The Ecology Chapter will state whether the proposed works have the potential to impact on a European Protected Species and result in an offence under The Conservation of Habitats and Species Regulations 2017 (as amended). If an offence is likely, the applicant will need a licence from Natural England and OCC must consider whether a licence is likely to be obtained before granting planning permission.
It must be noted that protected species surveys are typically valid for 12 months (less for badgers). Any deviation from best practice guidance will need to be approved by the Ecology Officer prior to submission.

Biodiversity Net Gain

The scheme shall demonstrate that a measurable net gain in biodiversity will be achieved, in accordance with local and national planning policy. The restoration scheme will be designed to ensure high quality ecological habitat is provided and managed for long-term biodiversity benefits.

This shall be calculated using a biodiversity accounting metric; at the time of writing, the recommended calculator is the Defra 2.0 metric. It should be noted that this version of the metric is under review, therefore the application must be supported by the most up to date version at the time of submission. Use of another calculator will not be approved. The metric calculations will be informed by up to date baseline survey information and realistic expectations of what can be achieved in terms of habitat replacement, time to target condition and long-term management.

Impacts within the scheme area should in the first instance be minimised wherever possible and where it is not possible to achieve gains on-site and there is a consequential net loss, off-site compensation will be required. Details on how the net gain will be achieved will be provided at the application stage to provide confidence in what is achievable.

While no set percentage for biodiversity net gain is currently provided within local or national policy, the upcoming Environment Bill is expected to request a minimum of 10% biodiversity net gain above the baseline. The proposed scheme should therefore achieve a minimum 10% net gain in biodiversity, providing a meaningful contribution to local nature recovery. Should further policy or legislation come into force prior to submission of an application which expects a higher percentage net gain (for example a minimum 20%), this higher value must be provided. It is expected that the management will be guaranteed for a minimum of 25 years above the 5-year aftercare period.

<u>Landscape</u>

The site is not located within an Area of Outstanding Natural Beauty (AONB) but might be visible from the Cotswolds AONB, which is only a short distance away.
The Oxfordshire Landscape and Wildlife Study (OWLS) shows the site to be located in the Landscape Type ‘Farmland Plateau’ and the Local Character Area ‘Hornton to North Newington (NU/22). Landscape guidelines for this landscape type seek amongst other things the environmentally-sensitive maintenance and management of hedgerows, the strengthening of field patterns by planting up gappy hedges and the establishment of tree

belts around quarries and other large structures to reduce their visual impact using locally characteristic native tree and shrub species. It also seeks the restoration and after-use of quarries in a way that strengthens and enhances the local landscape character.

The development seeks to import inert soil material, which in turn will require a revision of the site's approved contours and restoration scheme. The provision of a greater area of nature conservation is welcomed but I am not sure how compatible the proposed uses of a nature reserve and holiday chalets in this location are, since nature conservation areas tend to be sensitive to disturbance.

The afteruse of chalets will introduce built form and activity into a rural area rather than restoring it to agriculture and nature conservation as it was previously agreed. This has the potential to adversely affect local landscape character and views, the impact of which will have to be assessed.

A Landscape and Visual Impact Assessment (LVIA) will be required to assess the impacts of the proposals on landscape character and views. This should be in line with the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) and assess both landscape and visual effects including any potential impacts on the Cotswolds AONB or its setting.

Visualisations should follow the Landscape Institute guidance TGN 06/19. As a minimum Type 1 visualisations (i.e. annotated viewpoint photograph) should be provided but a higher type of visualisation might be required for selected viewpoints should particular visual concerns arise.

It is recommended that the methodology, study area and viewpoints are agreed with relevant local authority landscape officer prior to the LVIA being completed.

The assessment should not only consider the landscape and visual effects of extraction, infilling and restoration of the site itself but also take account of the potential impact of HGV movement and car traffic on landscape character and landscape quality (e.g. tranquillity), especially should the Cotswolds AONB be affected.

The introduction of holiday chalets has the potential to introduce activity and lighting into what's currently a dark area. The LVIA will therefore also need to consider the impact of lighting on the landscape character, views and dark skies. The Cotswolds AONB have produced a Position Statement on 'Dark Skies & Artificial Light', which together with the Guidance Note 1 for the Reduction of Obtrusive Light (January 2020) by The Institution of Lighting Professionals (ILP) (https://theilp.org.uk/resources/) should be taken into account should lighting be proposed.

Similarly, potential impacts on the tranquillity caused by the development will need to be assessed. Although the site is located outside the AONB, Management Plan policies on Landscape, Local Distinctiveness, Tranquillity and Dark Skies might still be relevant depending on the impact of the scheme.

In line with best practice guidance, the assessment should be used to inform the proposal with regard to the most appropriate landform, layout and landscape treatment. In addition, local landscape character assessments and ecological requirements should be used to

inform the restoration of the site. In this context consideration should also be given to how the proposal could best compliment the restoration on the adjacent landfill with a view to maximise landscape, ecological and green infrastructure benefits.

In addition, consideration will need to be given to the impact of the proposals on the affected Public Rights of Way (PRoW) and the Council's Public Rights of Way Officer should be consulted on the proposal.

Whilst I see no issue with the restoration to nature conservation, the appropriateness of the introduction of chalets will depend on further detail, its impact on landscape character and views, and the restoration of the site for the benefit of landscape, biodiversity and green infrastructure.

Information required should an application be made:
− Detailed description of the proposal
− Supporting Statement
− Tree survey to BS5837:2012 (Trees in relation to construction) if trees are affected.
− Plans and cross-sections as necessary to understand the scheme and its potential impact
− A Landscape and Visual Impact Assessment (LVIA) in accordance with the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA) carried out by a suitably experienced landscape professional. Visualisations should follow the Landscape Institute guidance TGN 06/19.
− Lighting information (if proposed)
− A Landscape Masterplan. This should include:
    - o notes explaining the rationale behind the scheme with reference to other important characteristics such as views, need for screening etc,
    - o trees/ mature vegetation to be retained,
    - o trees/mature vegetation to be removed,
    - o type of new planting,
    - o changes in level;
    - o means of enclosure;
    - o vehicle and pedestrian access and circulating areas;
    - o hard surfacing materials;
    - o structures and minor artefacts (e.g. signs, lighting etc.)

− A Planting Plan:
In addition to showing the key components of the landscape masterplan this should include soft landscape specifications such as plant species/seed mixes, plant sizes, planting densities, ground preparation and information on ongoing management/maintenance.
Planting should be mixed native, in keeping with the landscape character, support wildlife and offer resistance to pest and diseases as well as climate change.

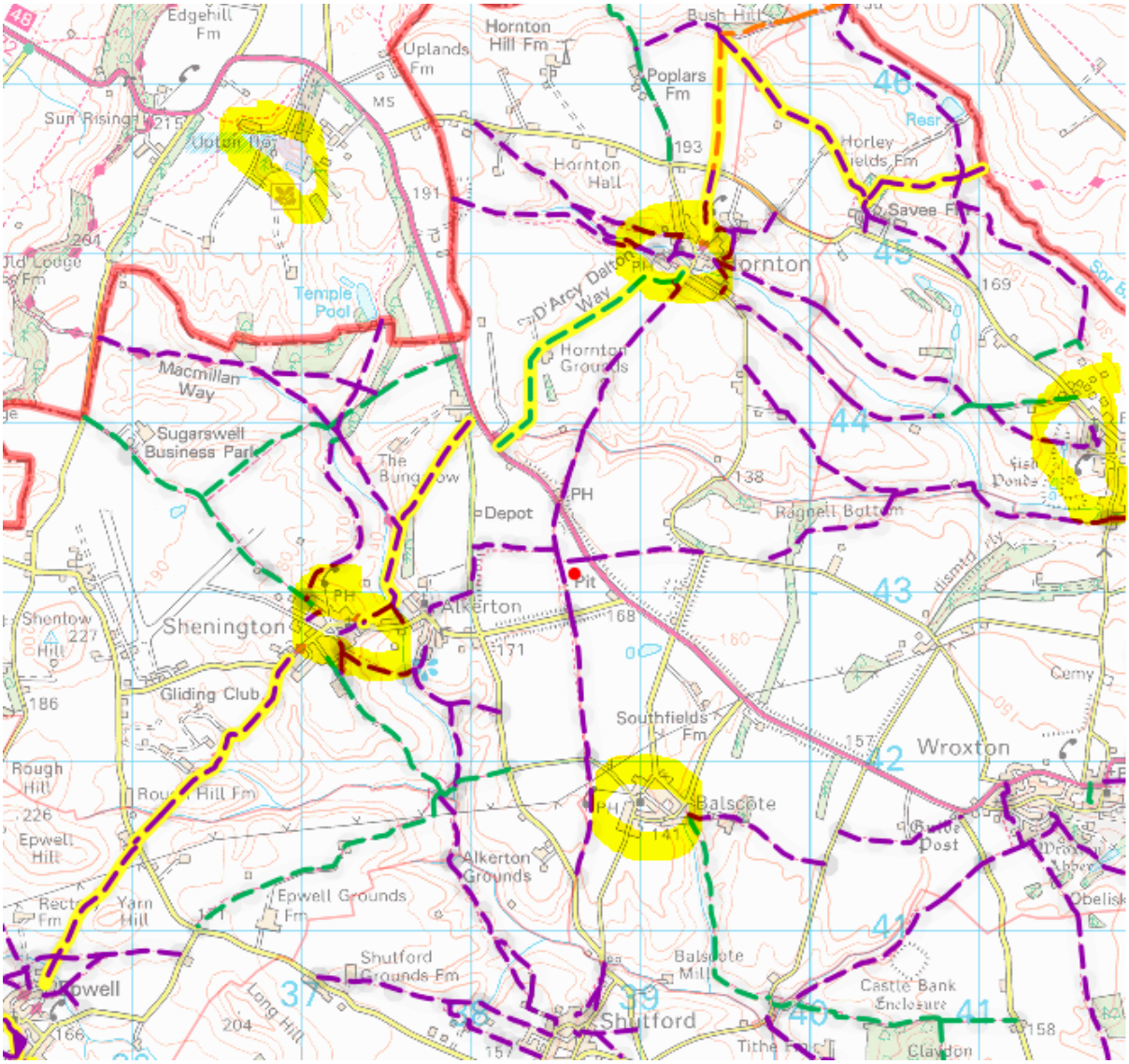
For further information about the requirements for assessing impact on landscape, please contact Haidrun Breith Haidrun.Breith@Oxfordshire.gov.uk

Rights of Way

The proposed restoration to small-scale tourism and the reinstatement of public rights of way on their definitive line has a few points that probably need more consideration.

It seems like the reinstated footpaths will be enclosed by hedges to separate them from the proposed glamping area. This is understandable but it will be important to retain views, safety, easy maintenance and feeling of openness. Often if paths are fenced to too narrow an initial width this can cause problems with hedges overgrowing across the path, poor access for hedge maintenance, and more often the path turning boggy as users are focused on a narrow wearing trip necessitating surfacing and other measures. These can be avoided by providing an open sided path or leaving a wider width so that hedges do not encroach, tractors can access the path to flail the hedge from the inside, and users are not concentrated in a narrow strip. At this stage I'd suggest a 6m+ path corridor would help achieve this. I'd also want details of proposed locations of waste/sewage facilities to take account of the public footpaths.

For potential users of the glamping site, access to and along the footpaths for holiday makers needs to be factored in as the onsite paths and the surrounding area gives a great opportunity to access goods, services and the wider countryside during their stay without having to use cars. This could be very attractive for people wanting to stay on an eco site. I have attached an image below which shows local countryside attractions including the National Trust's Upton House, pubs, rights of way and promoted routes and villages that are within 3km of the site which makes them eminently walkable and cyclable from the site – and a real reason to come and stay there.



We could work with the developer and neighbouring landowners using a reasonable s106 contribution, to enhance access along public rights of way and quiet roads for the benefit of site users and the public. In due course I can have more discussions about this and supply estimates.

Annex 1 contains standard measures for applications affecting public rights of way.

To discuss the proposals for Public Rights of Way further, please contact Paul Harris paul.harris@oxfordshire.gov.uk

External consultees

I have not consulted external consultees, as many have their own chargeable pre-application advice service. Therefore, you may also wish to seek advice from Cherwell District Council and the Environment Agency before finalising your proposals.

Environmental Impact Assessment (EIA)

A Scoping Opinion has been provided separately.

Planning Application Process

Once a planning application has been made and validated, we work to a 13-week target for determination (16 weeks for EIA development). The likelihood of this being met depends on the complexity of the application, how comprehensive the information submitted is and the level of objection.

Committee dates for 2021 are set out below:

6th September 2021
18th October 2021
29th November 2021

This meeting is usually held at 2pm at County Hall in Oxford.

Consultees

A range of statutory and non-statutory consultees would be formally consulted for a 21-day period by OCC as Planning Authority following the submission of the application. These will include the District Council, any neighbours that could be affected, local Parish Councils, the local County Councillor, internal consultees and expert bodies. Section 6 of the Oxfordshire Statement of Community Involvement 2020 contains more information. This document can be found on the Oxfordshire County Council website: Statement of Community Involvement (oxfordshire.gov.uk)

Public engagement

Applicants are encouraged to liaise with stakeholders prior to the submission of an application to ensure that there is good communication and allow the potential for proposals to be amended in light of any legitimate concerns. It would be helpful if the application could include details of how the scheme has developed or been modified in response to public engagement.

I recommend that you undertake liaison with the local community, so that they are aware that the application is going to be submitted prior to being formally consulted. Pre-submission engagement could also help inform the final proposals by taking on board feedback from the local community.

Shenington with Alkerton Parish Council responded to the consultation on the Scoping Opinion for the previous proposed amended restoration and stated that they are concerned about the traffic that would be generated by these proposals. They stated that their understanding of the original proposal for the quarry was that it would be simply landscaped and allowed to return to grassland rather than have a new business opportunity established there. Thy feel that it would demonstrate considerable goodwill if

there were some consideration of improvement to the local community, given the significant disruption proposed for the infill phase. It is therefore recommended that the applicant is pro-active in engaging the Parish Council, to understand what mitigation measures they feel would be necessary or appropriate in relation to the proposals. I have not received any comments from the Parish Council on the Scoping Opinion for the current proposals.

Validation

Although not recently updated and so not currently a legal requirement for the validation of applications, the Oxfordshire County Council's validation checklist provides details of the information which needs to be submitted along with a planning application. The list can be found on our website:
https://www2.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/environmentandplanning/planning/planningpolicy/ValidationChecklist.pdf

Documents to be provided with the application would be as required for the previous submission, but care should be taken to ensure that all plans and documents are fully updated to reflect the changes to the proposed scheme.

The following will be required:

- Application Form
- Notice(s)
- Location Plan
- Red line boundary Plan
- Planning Statement – including details of method of working, timescale and phasing
- Phasing Plans
- Restoration Plan
- Proposals for aftercare and long-term management
- Air Quality Assessment (including Dust Assessment)
- Ecological Assessment
- Biodiversity Metric (current version is DEFRA 2.0)
- Flood Risk Assessment
- Landscape and Visual Appraisal (LVIA) (in accordance with GLVIA3)
- Landscape Plan – showing existing vegetation to be lost and retained, and new planting
- Landscape Management Plan – outlining the long-term management of restored site
- Lighting Scheme for any external lighting proposed
- Assessment of impacts of any lighting proposed
- Noise Impact Assessment
- Sustainability Statement
- Cumulative impact assessment
- Transport Assessment
- Tree Survey to BS5837:2012 standard
- Surface Water Drainage Plan
- Full details of proposed built development on restored site – elevations, floorplans and site plan for holiday chalets and any associated buildings and structures.

The Local List of Validation Requirements provides further detail on these requirements. In this case, as there is an EIA, some of these requirements would be covered by the Environmental Statement.

The final application should be submitted via the Planning Portal – www.planningportal.gov.uk . Details of the fees for submitting planning applications can also be found on the Planning Portal, which also has a fee calculator function: https://www.planningportal.co.uk/info/200126/applications/59/how_to_apply/7

If you have any questions regarding this advice, please contact me.

Yours sincerely

M Hudson

Mary Hudson
Principal Planning Officer

mary.hudson@oxfordshire.gov.uk
07393 001 257

Disclaimer
Any advice given in relation to the planning history of the site, planning constraints or statutory designations does not constitute a formal response of the Council under the provisions of the Land Charges Act 1975.

Any pre-application advice given by Council Officers does not constitute a formal response or decision of the Council with regards to future planning consents.

Any views or opinions expressed are given in good faith, and to the best of ability, without prejudice to the formal consideration of any planning application, which will be subject to public consultation and ultimately decided by the Council. The Council cannot guarantee that new issues will not be raised following submission of a planning application and consultation upon it.

You should be aware that Officers cannot give guarantees about the final formal decision that will be made on your planning or related applications.

Annex 1 - Standard measures for applications affecting public rights of way

1. **Correct route of public rights of way**: Note that it is the responsibility of the developer to ensure that their application takes account of the legally recorded route and width of any public rights of way as recorded in the definitive map and statement. This may differ from the line walked on the ground. The Definitive Map and Statement is available online at www.oxfordshire.gov.uk/definitivemap.

2. **Temporary obstructions.** No materials, plant, temporary structures or excavations of any kind should be deposited / undertaken on or adjacent to the Public Right of Way that obstructs the public right of way whilst development takes place.

3. **Route alterations.** The development should be designed and implemented to fit in with the existing public rights of way network. No changes to the public right of way's legally recorded direction or width must be made without first securing appropriate temporary or permanent diversion through separate legal process. Alterations to surface, signing or structures shall not be made without prior written permission by Oxfordshire County Council. Note that there are legal mechanisms to change PRoW when it is essential to enable a development to take place. But these mechanisms have their own process and timescales and should be initiated as early as possible – usually through the local planning authority.

4. **Vehicle access (construction):** No construction / demolition vehicle access may be taken along or across a public right of way without prior written permission and appropriate safety/mitigation measures approved by Oxfordshire County Council.

5. **Vehicle access (Occupation)**: No vehicle access may be taken along or across a public right of way to residential or commercial sites without prior written permission and appropriate safety and surfacing measures approved by Oxfordshire County Council.

6. **Gates / right of way:** Any gates provided in association with the development shall be set back from the public right of way or shall not open outwards from the site across the public right of way.

7. **Improvements to routes:** Public rights of way through the site should be integrated with the development and improved to meet the pressures caused by the development whilst retaining their character where appropriate. This may include upgrades to some footpaths to enable cycling or horse riding and better access for commuters or people with lower agility. Proposed improvements should be discussed and agreed with Oxfordshire County Council.

APPENDIX 3

Hydrogeological Risk Assessment
ref. 4919-CAU-XX-XX-RP-O-0300

Caulmert Limited

Engineering, Environmental & Planning Consultancy Services

Alkerton Quarry

Alkerton 2022 Limited

Bespoke Environmental Permit Application

Hydrogeological Risk Assessment

Prepared by:

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January 2023

Caulmert
engineering environmental planning

APPROVAL RECORD

Site: Alkerton Quarry

Client: Alkerton 2022 Limited

Project Title: Bespoke Environmental Permit Application

Document Title: Hydrogeological Risk Assessment

Document Ref: 4919-CAU-XX-XX-RP-O-0300.A0.C1

Report Status: **Final**

Project Manager: Andy Stocks

Caulmert Limited: Strelley Hall, Main Street, Strelley, Nottingham, NG8 6PE

Author	Sarah Venning Associate Hydrogeologist	**Date**	14/11/2022
Reviewer	Andy Stocks Director of Environment	**Date**	25/11/2022
Approved	Andy Stocks Director of Environment	**Date**	23/01/2023

Revision Log			
Revision	**Description of Change**	**Approved**	**Effective Date**
C1	Initial Release	AS	23/01/2023

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Hydrogeological Risk Assessment

TABLE OF CONTENTS

DRAWINGS

APPENDICES

1.0 INTRODUCTION

1.1 Background

1.1.1 This Hydrogeological Risk Assessment (HRA) report has been undertaken as part of an environmental permit application for the proposed waste recovery activities at Alkerton Quarry ('the Site'), near Banbury, Oxfordshire. The proposed development is designed to improve the overall restoration of the former quarry. Oxfordshire County Council Planning Authority have indicated that the current restoration of the site is unsatisfactory. The proposed development concerns the modification of the Approved Restoration Scheme which cannot be undertaken due to removal of mineral beneath the haul road, and insufficient material available on site to restore the route of the haul road to approved contours. Therefore, it is proposed through the importation of inert soil material to achieve an effective low-level landform for nature conservation after uses and holiday chalets. The screening opinion report produced by Bright and Associates on behalf of Alkerton 2022 Limited indicates the following:

- The Site will be restored over three years based on infill of inert soil material of 50,000 tonnes per year.
- The Site will be restored to a low-level landform (drawing ref. AL1198-D10) which would be appropriate in terms of landscape character. The variation in final restoration contour levels when compared to the Approved Restoration Scheme will assist current drainage issues in the partially restored, northern part of the Site.

1.1.2 The final restoration of the Site will include a Nature Reserve (c.5 Ha) in the southern part of the site and small cabin/shepherd hut style holiday lodge located in the northern part of the Site. Foul water generated as part of the holiday lets will be treated via a standard package treatment works and discharged to land via an infiltration network. This will be assessed and regulated under the environmental permit. It is noted that there are no public sewers within the immediate area.

2.0 ENVIRONMENTAL SETTING

2.1 Site Location & Setting

2.1.1 The development site is located in the village of Alkerton approximately 9km to the northwest of Banbury, Oxfordshire. The national grid reference for the centre of the site is SP 38667 43070.

2.1.2 Access to the site is from Rattlecombe Road on the southern boundary.

2.1.3 The site is roughly triangular in shape and covers an area of approximately 10.8 ha. The site is bounded to the east by the A422 (Stratford Road) and Rattlecombe Road to the south. Alkerton Landfill Site (operated by SUEZ Recycling and Recovery UK Ltd) lies immediately adjacent to the northwest. The wider surrounding area comprises mainly of agricultural land.

2.1.4 The topography of the area is shown to have elevations between 130 and 180mAOD.

2.1.5 There are no statutory designated sites within 1km of the site. Balscote Quarry Local Wildlife Site is located approximately 260m south of the site. Approximately 1.1km north of the site is the Cotswolds Area of Outstanding Natural Beauty (AONB).

2.1.6 The New Inn is located on the eastern side of the A422, approximately 68m from the site boundary.

2.1.7 The nearest residential properties are:

- Heath Farm adjacent to the southeast of the site
- Langley House, 320m southeast of the site
- Southfields Farm (and associated buildings) 660m south/southeast of the site
- Residential properties within Alkerton Village, 830m west of the site

2.2 Site History

2.2.1 The roads surrounding the site and the New Inn are present on the first edition OS map, dated 1882. The site area is undeveloped at this time. By 1959 the land to the east of the New Inn is shown as being quarried, although the site itself has remained unchanged.

2.2.2 The 1972 map shows that quarrying operations have commenced at the site. The land to the east of Stratford Road has been worked out by 1996, but not restored.

2.2.3 The northern part of the site was partially restored approximately 14 years ago.

2.3 Geology

Regional Geology

2.3.1 The solid regional geology beneath the site comprises of the Lias Group. The generalised geological succession for the Alkerton Area is outlined below:

Geological Age	Deposit Description	Regional Thickness
Jurassic Whitby Mudstone Formation (Upper Lias)	Medium and dark grey fossiliferous mudstone and siltstone, laminated and bituminous in part, with thin siltstone or silty mudstone beds and rare fine-grained calcareous sandstone beds.	C.120m
Jurassic Marlstone Rock Formation	Sandy, shell-fragmental and ooidal ferruginous limestone interbedded with ferruginous calcareous sandstone, and generally subordinate ferruginous mudstone beds.	C.10m
Jurassic Dyrham Formation (Middle Lias)	Pale to dark grey and greenish grey, silty and sandy mudstone, with interbeds of silt or very fine-grained sand	C.125m
Jurassic Charmouth Mudstone Formation (Lower Lias)	Dark grey laminated shales, and dark, pale and bluish grey mudstones	C.335m

2.3.2 Superficial deposits: The site is not located on any superficial deposits. The nearest superficial deposits located are alluvial deposits constrained within the stream to the west of the site.

Local Geology

2.3.3 The Whitby Mudstone Formation has been mapped in the southwest of the site, however this has largely been extracted across the site due to quarrying operations.

2.3.4 Published geological logs indicate a thickness of the Marlstone Rock Formation up to 7m across the area. The Dyrham Formation (Middle Lias) is found to be up to 26m in thickness at the location of the site. There are no known faults at the site.

2.4 Hydrogeological Setting Baseline

2.4.1 The Marlstone Rock Formation underlying the site is defined as a Secondary A aquifer . These have been defined as 'permeable layers capable of supporting water supplies at a local rather than

strategic scale, and in some cases forming an important source of base flow to rivers These are generally aquifers formerly classified as minor aquifers.' Hydraulic conductivities reported in cores of the rock taken from Alkerton Quarry range between $9x10^{-5}$m/day and $9x10^{-4}$ m/day. However, where the rock is fractured, conductivities have been reported up to 4.2m/day.

2.4.2 The Whitby Mudstone Formation and the Charmouth Mudstone Formation are classed as unproductive aquifers. By definition these are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

2.4.3 The Dyrham Formation is classified as a Secondary undifferentiated aquifer which is assigned in 'cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type'. Hydraulic conductivities in the Dyrham Formation range between $9.4x10^{-6}$ and $6.9x10^{-4}$ m/day

2.4.4 The site is not located within a source protection zone and there are no groundwater source protection zones within 1km of the site.

2.4.5 Regional borehole logs indicate an absence of groundwater within the surface strata. An exploratory water well at Wroxton Iron works (2km SE) was dry for 65m. Similarly, an exploratory well at Alkerton in 1954 only intersected groundwater at 70ft below ground. This corresponded to a limestone strata. However, two trial pit logs published for the adjacent landfill site indicated water present at circa 3 mbgl within a fractured ironstone. It is therefore considered that regionally there is no significant groundwater receptor present, however localised groundwater may be present within the fractured strata and residual ironstone present at the site.

Groundwater Quality

2.4.6 Alkerton Landfill Site is located adjacent to the Alkerton Quarry on the north-western boundary. Areas of this landfill are an engineered containment site within an environmental permit boundary, however, there are parts of historic dilute and disperse landfill which may be having an impact on the underlying groundwater quality.

Abstractions and Private Water Supplies

2.4.7 There is one licenced water abstraction located at Upton Farm approximately 1km to the northwest of the site, which can be seen on Figure 2 below. This licence has four conditions attached and details are included in Appendix 1.

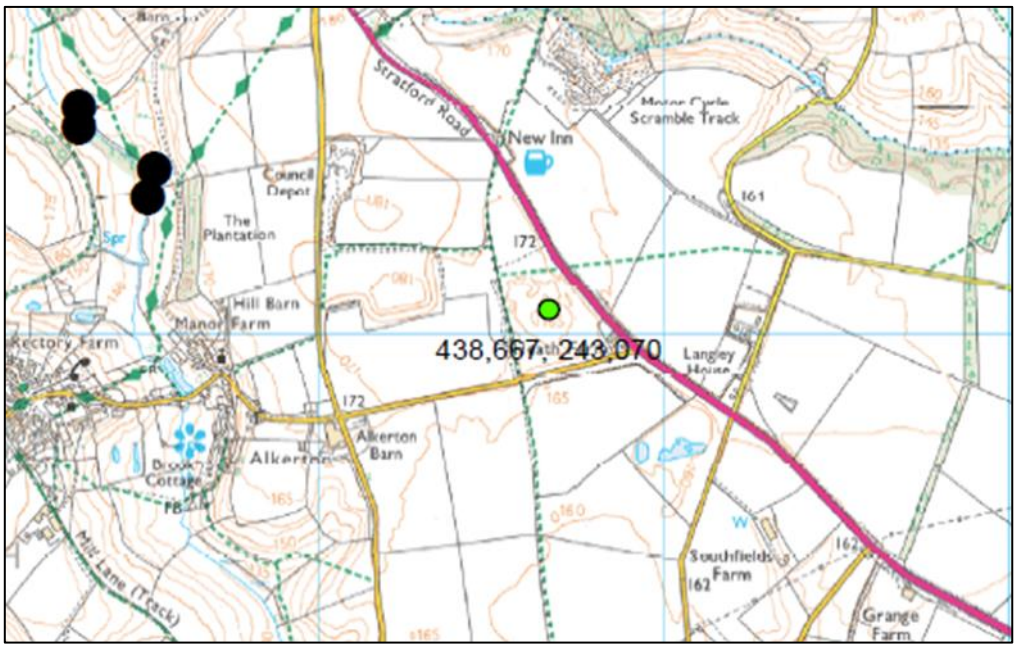


Figure 2: Licensed Water Abstraction Location

2.4.8 The Private Water Supply Regulations 2016 place an obligation on Local Authorities to register and inspect private water supplies. Cherwell District Council have confirmed that they do not monitor any private water supplies within 1km radius of the boundary of the site. Communications are included in Appendix 1.

Local Hydrogeology

2.4.9 The main aquifer unit, the Marlstone Rock Formation (ironstone) has been the target of the quarrying operations at the site and therefore largely removed from beneath the site. It is estimated that only 1-2m of residual aquifer rock potentially remain at the site. This is calculated from the full thickness of the Marlstone Rock Formation which is reported as "about 10m"(BGS Lexicon of Named Rock Units), natural ground levels of 170 -171mAOD, and current ground levels circa 162 mAOD (at lowest point). It is also noted that locally only 6-7m of Marlstone Rock Formation has been recorded within publicly available logs. To date, the quarry has been worked dry and there is no dewatering activity or ponded water present.

2.4.10 Limited local groundwater elevation data is available; however, it is understood that the groundwater level adjacent to Jenny's Sanctuary is approximately 161.5 mAOD which would be in agreement with the observations regarding the quarry being worked dry. The hydrogeological setting of the site is presented within Figure 3.

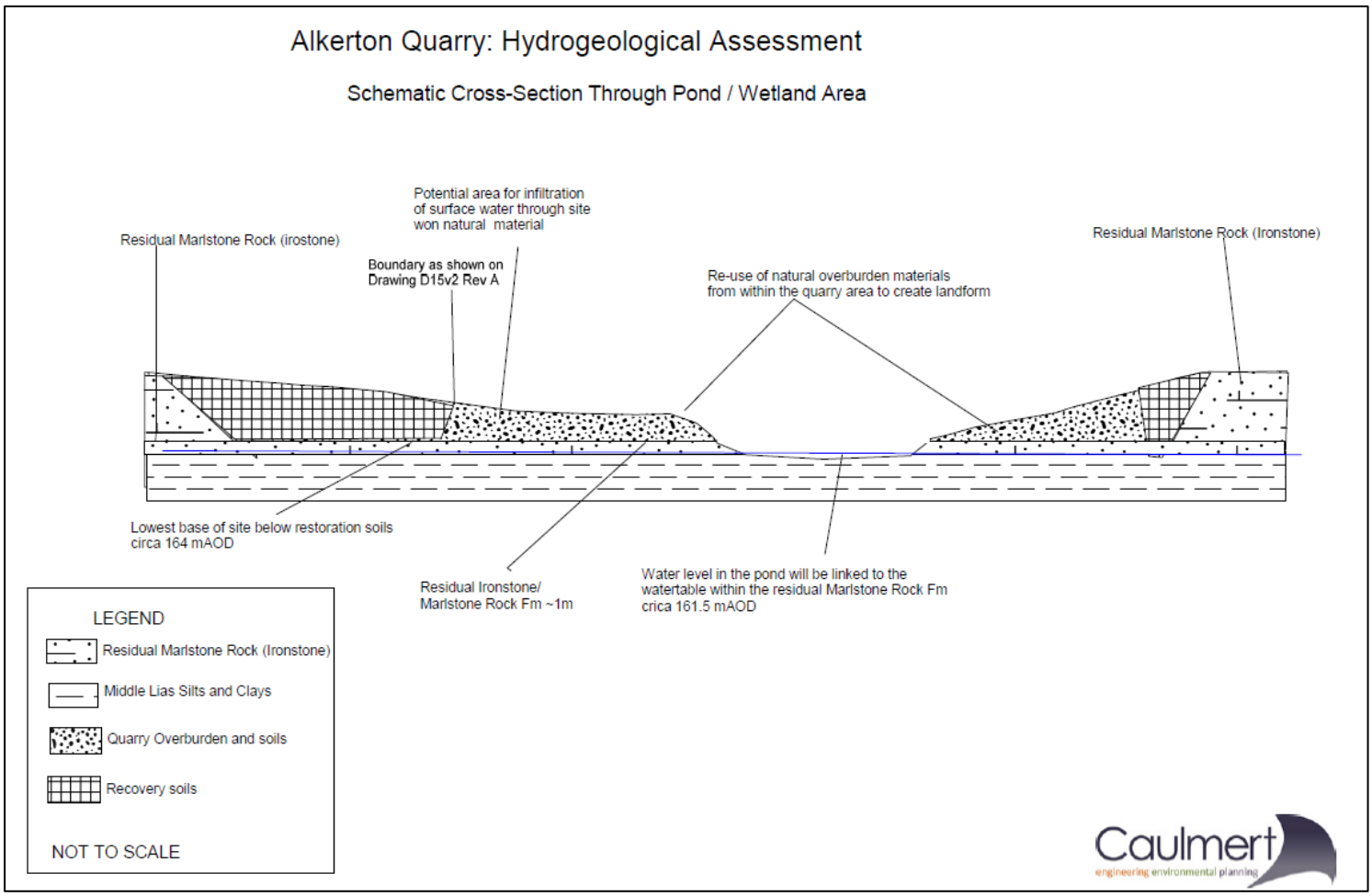


Figure 3: Schematic cross section through the site - Groundwater flow to the east (right hand side).

2.4.11 The site is located on a flat plateau between two valleys to the east and west of the site and a gentle slope towards the south. Alkerton Landfill, to the west, is in part keyed-in to the underlying clay and therefore there is no westerly flow. The relatively close proximity of the valley to the northeast (approximately 460m) suggests that the groundwater is likely to be following a subdued reflection of the surface topography towards the east.

2.4.12 Further afield, there is a well-developed spring line between the Marlstone Rock Formation and the underlying Dyrham Formation. OS maps show several springs are present. The spring to the north of the site near Stratford Road and the business park is at approximately 165mAOD. In contrast, the springs in Balscote approximately 1.1km southwest of the site emerge at 135mAOD.

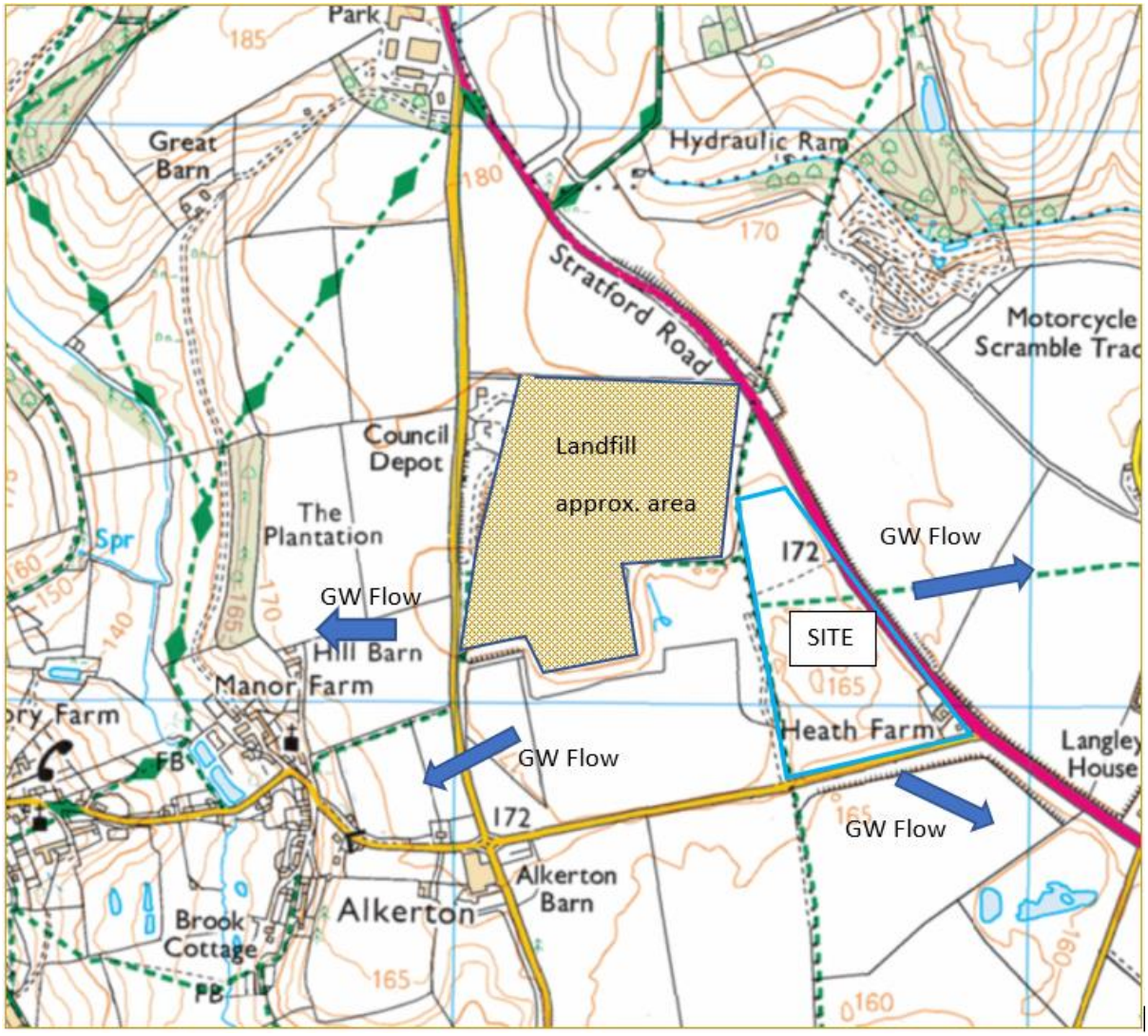


Figure 4: Groundwater Flow Direction (Alkerton Quarry boundary in light blue)

Groundwater Quality

2.4.13 No groundwater quality data is currently available however the presence of a landfill site with dilute and disperse areas adjacent to the site would suggest that it is unlikely that the groundwater will be pristine clean. The groundwater is likely to contain species associated with the degradation of organic matter such as ammoniacal nitrogen and chloride.

2.5 Hydrology

2.5.1 Water features within 1km of the site boundary have been identified and can be seen on Figure 1. The Shutford Stream flows north to south through Alkerton Village, to the west of the site, approximately 970m away. Much of the stream flow is derived from springs that break out along the eastern side of the valley at the Dyrham Formation and Charmouth Mudstone Formation (Middle and Lower Lias) junction.

2.5.2 A spring issues from the ground approximately 460m north of the site and forms a stream flowing eastwards. This flows into the Hornton stream approximately 2.3km east of the site.

3.0 CONCEPTUAL MODEL AND RISK ASSESSMENT

3.1 Approach

3.1.1 The assessment of the risks of the proposed restoration of the quarry using waste soils adopts a source, pathway, receptor approach that is used predominantly in risk assessment. If the source, pathway or receptor is absent, then it is considered that there is negligible risk.

3.2 Source

3.2.1 The Site will accept a significantly restricted waste list predominantly comprising inert soils sourced from local building projects over the anticipated three-year development period. The list of acceptable waste streams has been reviewed to limit the potential for pollution to arise from the imported material. Waste within this list (Appendix 2) is restricted to soils, subsoils and mineral wastes, bricks and concrete.

3.2.2 These inert recovery materials will be characterised in accordance with the waste acceptance procedures where the development history of the donor site is recorded (potentially contaminative land uses), together with any geochemical data that may be available. It is noted that the inert WAC (landfill) is not applicable to recovery operations.

3.2.3 Contaminated or suspect loads will be required to be rejected from site prior to processing and as a consequence the risk of rogue loads containing potentially polluting substances is considered to be very low.

3.2.4 Only site-won overburden and quarry rejects will be used to form the proposed wetland and water features. All imported recovery materials will be placed above the groundwater table within the base of the existing quarry.

3.2.5 Dependent on the incoming recovery materials, clay and or silt rich material may be used to form a nominal attenuation layer at the base of the development. This would depend on the availability of suitable restoration materials.

3.2.6 Topsoils stripped from the site will be used in the final restoration layers.

3.3 Pathways

3.3.1 All waste material will be placed above the water table such that there is no direct discharge from the site to the groundwater environment. Site won overburden and quarry rejects will be used to form the batters adjacent to the pond area.

3.3.2 Infiltration to the restoration soils has the potential to leach contaminants from the soils where present. This water, if not held within the field capacity of the soils, will migrate vertically down towards any groundwater within the residual ironstone beneath the base of the site. Conceptually this groundwater will migrate from the site to the point of discharge. It is assumed that this is to the east based on the topography adjacent to the site. Flow is considered to be very limited due to the presence of the site on a groundwater divide.

3.3.3 The underlying mudstone is considered to be a barrier to any vertical flow from the ironstone.

3.3.4 The site is located on a groundwater divide and therefore the saturated thickness is expected to be limited. Groundwater may be present in the residual ironstone at the site.

3.3.5 Published borehole records have indicated that there is no significant groundwater body present, with logs reporting wells dry to 65m or groundwater levels at 70ft below ground level.

3.3.6 Restoration soils will be strictly inert and therefore by definition will not pose a potential risk to the groundwater environment.

3.3.7 There are no groundwater receptors between the site and the discharge zone east of the site.

3.3.8 The discharge of treated effluent from the chalets will be assessed and regulated under an environmental permit.

3.4 Receptors

3.4.1 The receptor is considered to be any groundwater within the residual ironstone at the base of the site and groundwater within this formation adjacent to the property boundaries. Ultimately the groundwater will discharge to the surface water environment.

3.4.2 There are no groundwater receptors between the site and the discharge zone east of the site.

3.5 Risk Screening for Hydrogeological Risk Assessment

3.5.1 The site is not considered to be located within a sensitive groundwater environment due to the extraction of the aquifer unit and absence of any groundwater abstractions within the local environment. Furthermore, the groundwater quality is likely to have been compromised by the adjacent dilute and disperse landfill facility. Therefore, a risk screening exercise has been undertaken.

Source term

3.5.2 As indicated above, the waste list is restricted to waste materials comprising inert soils, subsoils, mineral waste, bricks and concrete (see Waste List for full definition). These materials are regarded as inert and would not have the potential to generate discernible concentrations of contaminants within a leachate. Therefore, under normal operational conditions, there is no potential source of contamination associated with this waste.

3.5.3 Protection from rogue loads containing potentially contaminated soils is addressed through the strict waste acceptance procedures to be adopted at the site.

Pathways & Receptors

3.5.4 The groundwater beneath the site is both a pathway and receptor. As indicated above, there is limited residual aquifer present beneath the site and therefore only a limited pathway exists. There are no sensitive groundwater users down gradient of the site.

3.5.5 The risk screening has indicated that there is an absence of a source term which has the potential to generate a leachate of significant strength to pose a risk to the wider environment as a result of the proposed recovery activities. Therefore, the restoration soils are not considered to pose a risk to the groundwater and wider environment.

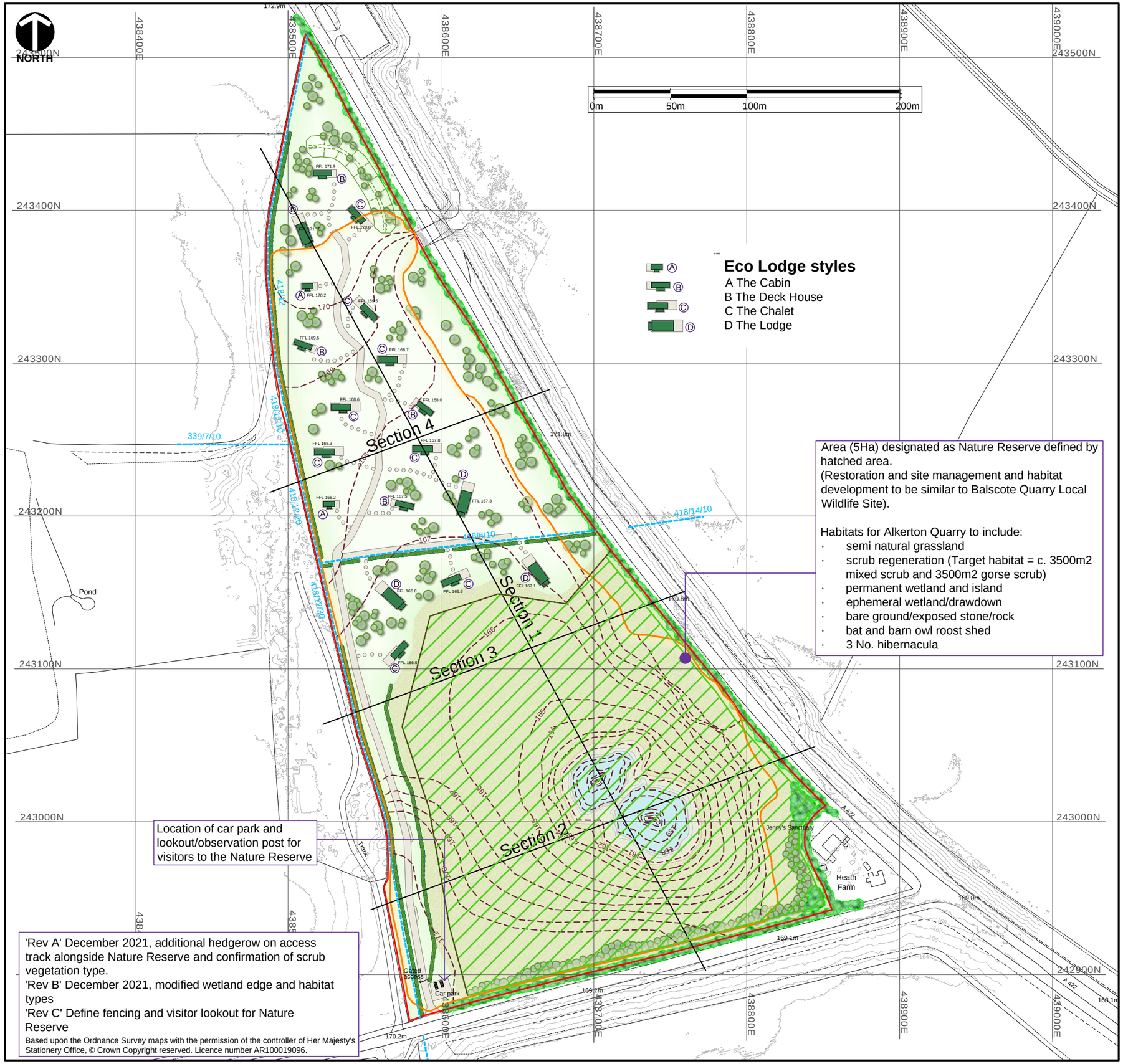
4.0 CONCLUSIONS

4.1.1 This report has considered the potential impact from the importation of restoration materials on the groundwater environment. The report has indicated that the site is in a relatively low sensitivity area with groundwater only present within residual ironstone in the base of the site.

4.1.2 As part of this Environmental Permit, the incoming materials will have to meet a strict waste acceptance procedure associated with the defined list of acceptable wastes. This list has been developed specifically to mitigate the risk of contamination to groundwater, with the waste limited to inert materials. As a consequence, the potential for generation and mobilisation of contamination from the selected infill materials is considered to be extremely low and with the absence of the source term, the risk to groundwater is also extremely low.

DRAWINGS

AL1198-D10v6 Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges



Key

- Site boundary
- Ordnance Survey Mastermap data and background survey information beyond site boundary
- Boundary defining the extent of infill to achieve the restoration landform
- Proposed restoration landform contours
- Proposed 3 metre noise attenuation bund with scrub and lowland grass cover
- Proposed native species hedgerow
- Proposed native species woodland or mixed scrub vegetation with limited canopy height and established with lowland grass areas
- Retained existing hedgerows and broadleaved plantation woodland
- Footpaths retained on definitive route (routes beyond site are shown for reference)
- Illustrative eco lodge units with track access and with floor level indicated
- Hatched diagonal graphic (green line) indicating area of proposed Nature Reserve. Northern and western side of Reserve to have 1.2m post and netting fence (brown line with dots).
- Wetland area with permanent water, draw down zone and island features

For Cross Sections see Figure P6

Client:
AT Contracting Ltd.

Project:
Restoration of Alkerton Quarry

Title:
Revised Restoration Scheme for Nature Reserve and Holiday Eco Lodges

CAD Ref:	Version:	Drawn by:	Scale @ A3:	Origin Date:
AL1198-D10v8	8	RB	Plan 1:2500	May. 2021

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Registered Practice Landscape Institute

Drawing:
Figure P5 (Rev C)

APPENDIX 1

Abstraction Licences

LICENCE NUMBER	START DATE	END DATE	LICENCE HOLDER NAME	TOWN	COUNTY	POSTCODE	PURPOSE	ABS_START	ABS_END	SOURCE	POINT NAME	NGR	AQUIFER TYPE
28/39/14/0303	01/04/2008		UPTON FARM	BANBURY	OXFORDSHIRE	OX15 6HT	Private Water Supply	01-Jan	31-Dec	THAMES GROUNDWATER	UPTON ESTATE - E	SP37524348	G1.2 GW - MIDDLE LIAS (inc Marlstone Rock)
28/39/14/0303	01/04/2008		UPTON FARM	BANBURY	OXFORDSHIRE	OX15 6HT	Private Water Supply	01-Jan	31-Dec	THAMES GROUNDWATER	UPTON ESTATE - D	SP37304366	G1.2 GW - MIDDLE LIAS (inc Marlstone Rock)
28/39/14/0303	01/04/2008		UPTON FARM	BANBURY	OXFORDSHIRE	OX15 6HT	General Agriculture	01-Jan	31-Dec	THAMES GROUNDWATER	UPTON ESTATE, BANBURY, OXON SPRING 1	SP375434	G1.2 GW - MIDDLE LIAS (inc Marlstone Rock)
28/39/14/0303	01/04/2008		UPTON FARM	BANBURY	OXFORDSHIRE	OX15 6HT	General Agriculture	01-Jan	31-Dec	THAMES GROUNDWATER	UPTON ESTATE, BANBURY, OXON SPRING S	SP373436	G1.2 GW - MIDDLE LIAS (inc Marlstone Rock)

Sarah Venning

From: Jan Southgate <Jan.Southgate@Cherwell-DC.gov.uk>
Sent: 11 March 2021 12:58
To: Alice Daly
Subject: RE: Private Water Supplies

Dear Miss Daly

I have been passed your enquiry about private water supplies within an area you provided near Shennington. I have checked our records and we do not have any private water supplies on our records within the area you provided.

Regards

Jan Southgate
Environmental Health Officer
Cherwell District Council
Direct Tel: 01295 227906
jan.southgate@cherwell-dc.gov.uk
www.cherwell-dc.gov.uk
Find us on Facebook www.facebook.com/cherwelldistrictcouncil
Follow us on Twitter @Cherwellcouncil

APPENDIX 2

Waste List

Alkerton Quarry – Waste List for Recovery Operations

Waste Code	Description	Restrictions
01 01	**waste from mineral excavation**	
01 01 02	wastes from metalliferous excavation	Restricted to waste interburden and overburden only.
01 04	**waste from physical and chemical processing of non-metalliferous minerals**	
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07	N/A
01 04 09	waste sand and clays	N/A
02 04	**wastes from sugar processing**	
02 04 01	soil from cleaning and washing beet	N/A
10 12	**waste from manufacture of ceramic goods, bricks, tiles and construction products**	
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)	N/A
10 13	**wastes from manufacture of cement, lime and plaster and articles and products made from them**	
10 13 14	waste concrete	N/A
17 01	**concrete, bricks, tiles and ceramics**	
17 01 01	concrete	N/A
17 01 02	bricks	N/A
17 01 03	tiles and ceramics	N/A
17 01 07	mixtures of concrete, bricks, tiles and ceramics (other than those mentioned in 17 01 06)	Metal from reinforced concrete must be removed.
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**	
17 05 04	soil and stones other than those mentioned in 17 05 03	Topsoil, peat, subsoil and stones only.
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**	
19 12 09	minerals (for examples sand, stones) only	N/A
19 12 12	other wastes (including mixtures of materials) from mechanic treatment of wastes other than those mentioned in 19 12 11	Restricted to bricks, tiles, concrete and ceramics only.
20 02	**garden and park wastes (including cemetery wastes)**	
20 02 02	soils and stones	Topsoil, peat, subsoil and stones only.

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APPENDIX 4

Gas Risk Assessment ref. 4919-CAU-XX-XX-RP-V-0305

Caulmert Limited

Engineering, Environmental & Planning
Consultancy Services

Alkerton Quarry Eco lodges

Alkerton 2022 Limited

Planning Application

Gas Risk Assessment

Prepared by:

Caulmert Limited
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Document Reference: 4919-CAU-XX-XX-RP-V-0305-A0-C1

December 2021

Caulmert
engineering environmental planning

APPROVAL RECORD

Site:	Alkerton Quarry Eco lodges
Client:	Alkerton 2022 Limited
Project Title:	Planning Application
Document Title:	Gas Risk Assessment
Document Ref:	**4919-CAU-XX-XX-RP-V-0305-A0.C1**
Report Status:	**Final**
Project Manager:	Andy Stocks
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Author	Sarah Venning	**Date**	15/12/2021
Reviewer	Andy Stocks	**Date**	15/12/2021
Approved	Andy Stocks	**Date**	15/12/2021

DISCLAIMER

ASSESSMENT OF GAS RISKS ASSOCIATED WITH ADJACENT LANDFILL SITE

APPENDICES

1 INTRODUCTION

1.1 Report context

1.1.1 Caulmert Limited have been instructed to review the risks posed by the existing Alkerton landfill site to the proposed development at Alkerton Quarry. This report presents the conceptual understanding with respect to the source, pathway and receptors in line with the EA guidance Contaminated Land Risk Management (LCRM)[1]

1.1.2 This assessment reviews the conceptual model for the site specifically with respect to the potential pollutant linkages associated with the adjacent source of landfill gas. The assessment adopts a source, pathway, receptor approach and only if all three aspects are present, is there considered to be a risk to the proposed development.

1.1.3 The risk assessment takes into account the risks associated with the acute failure of the existing gas management infrastructure at Alkerton Landfill site and also long term risks once these site are no longer able to sustain a gas abstraction network. This report presents the assumptions behind the risk assessment with respect to these scenarios.

1.2 Site Development

1.2.1 It is acknowledged that the proposed holiday eco lodges will be located in close proximity of the ownership boundary of the current Alkerton Landfill Site. It is also noted that in some areas the historic plans indicate that the quarry (and therefore waste) did not extend up to this boundary, however the accuracy of these plan is unknown and therefore conservatively the waste is assumed to be close to the site boundary.

1.2.2 The Alkerton Landfill Site has resulted from the infilling of the former Alkerton Ironstone Quarry which mined the Marlstone Rock Formation (ferruginous sandstone). Geological information indicates that the regional dip of the strata is very low at circa 1 degree and as a consequence it is assumed that the base of the quarries were mined down to similar levels. The exception being the more recent cells which appear to have exploited the underlying clay for lining /capping materials as shown on Google earth images.

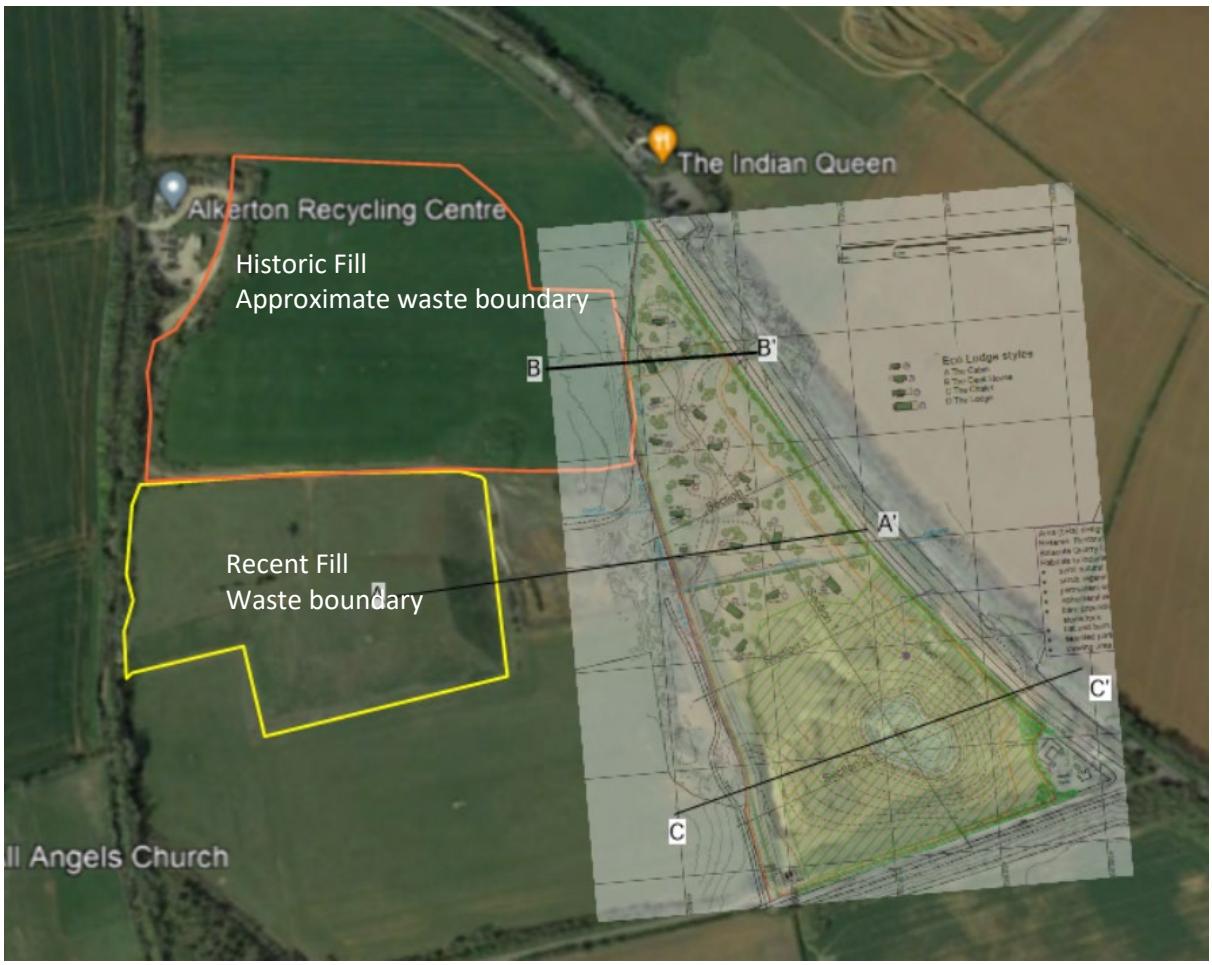
1.2.3 The site was also a former ironstone quarry, however it is understood that there remains some residual ironstone in some areas. The proposed development works includes the landscaping of this former quarry with the utilisation of both onsite soils, overburden materials and imported selected fill (regulated under an Environmental Permit). It is currently proposed that the natural overburden material will be used in the southern area to create the landform surrounding a lake and that the imported selected fill will be used to raise the levels in the north.

[1] Environment Agency, 19th April 2021, Contaminated Land Risk Management [online guidance accessed Nov 2021] https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm

Strict waste acceptance criteria regulated by the Environmental Permit will apply to this fill material such that it does not pose a risk to human health or the wider environment.

1.2.4 The development and different areas of adjacent landfill is presented on Figure 1 below.

FIGURE 1: Site Layout



Waste boundary shown in orange (OCC)and yellow (former SITA) sites. Proposed development shown with Section lines

2 SOURCE

2.1.1 Alkerton Landfill Site has been developed over a number of years and consequently contains some areas of historic infill which are now excluded from the Environmental Permitting Regulations. For the purpose of this assessment the landfill site is considered as two distinct areas: one comprising the historic areas of fill with no containment (OCC) and the other comprising the former SITA operated landfill site (Permitted) as shown above. The potential source of gas is dependent on the age of the waste mass therefore the risks of the two areas are discussed in turn.

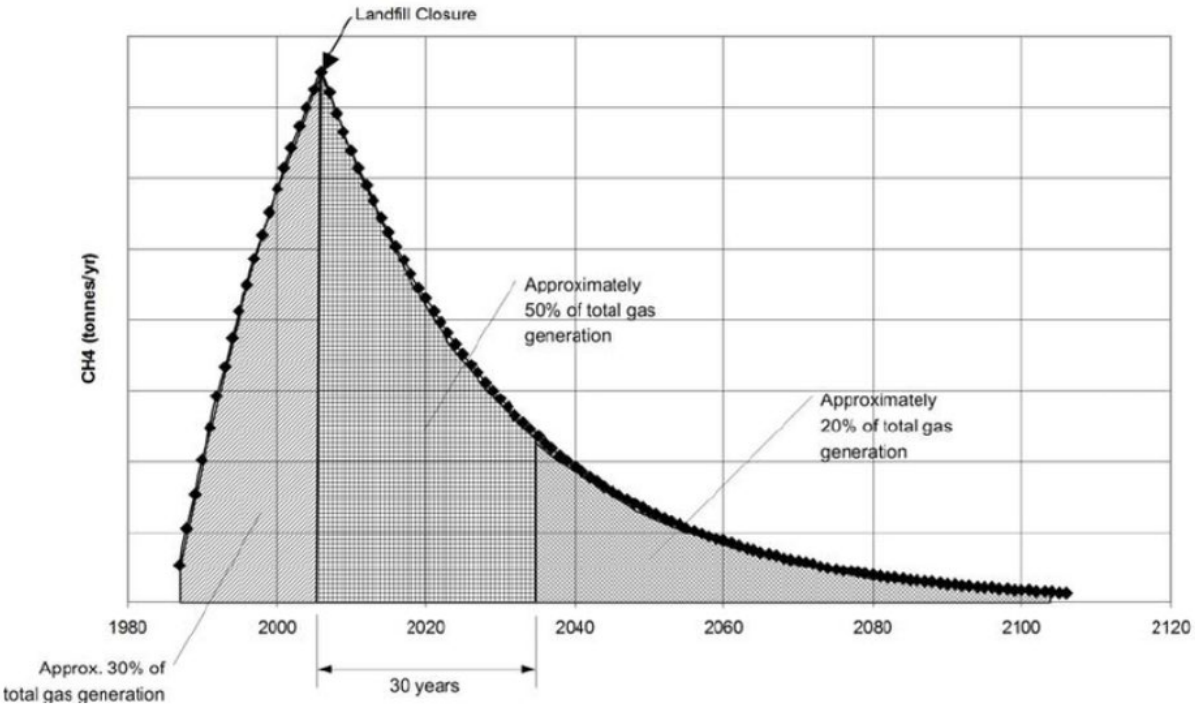
2.2 Historic landfill area.

2.2.1 The information contained in this section is based on previous experience working on behalf of OCC on the Alkerton Landfill site in the 2000s. The historic landfill area illustrated by the orange boundary on Figure 1 below was filled with domestic waste by Oxfordshire County Council within the 1970s/80s. The historic plans indicate that the footprint of the former quarry does not quite match the ownership boundary and that this is confirmed by the presence of perimeter monitoring wells located at some distance within the OCC ownership boundary. It is the distance between the waste mass itself and the development that is important with respect to pathways for gas migration however with the lack of certainty with the actual footprint of the waste mass, the worst-case scenario of waste being present at the boundary with the development has been used within the assessment.

2.2.2 Anecdotal evidence indicates that the base of the former ironstone quarry is between 7-8 mbgl which represented the thickness of the Marlstone Rock Fm (see pathways below). The historic areas is restored to former ground level and therefore has a limited thickness of waste circa 7-8m. A gas abstraction system was installed within this area indicating that this area was considered to represent a significant potential gas source in the past.

2.2.3 With respect to gas generation, the peak of gas flow rates usually occurs within 30 years following filling of the waste mass, tailing off thereafter. A typical gas generation model curve[2] is presented below

[2] : Department of Environment, Climate Change and Water, January 2010, Handbook for the design, construction, operation, monitoring and maintenance of a passive landfill gas drainage and biofiltration system NSWISBN: 9781742320977



Typical landfill gas generation curve (generated using the US EPA's LandGEM model)

2.2.5 Similarly it is not possible to estimate the lateral landfill gas flow rates towards the proposed development which the gas abstraction system is in operation. Conservative assumptions of 60% v/v methane and flow rates of 10 l/hr are used.

2.3 Former SITA area

2.3.1 It is assumed that this area is still operated under an Environmental Permit. Google earth imagery indicates that the last cell was constructed circa 2005 with other areas being capped with geomembrane at this time. This last cell was still operational in 2009 however it was restored with very well established vegetation by 2017 shown by the yellow boundary on Figure 1 (google imagery). Consequently, this area is considered to be within its peak methane production.

2.3.2 The relatively recent disposal of domestic waste in this area is considered to represent a significant source term with methane concentrations likely to be present above 60% v/v. The area supports a flare (volume unknown, however it is anticipated to be in the order of 200m3/hr). This would indicate significant gas generation rates remain present within this area of the site. It also indicates that perimeter gas monitoring would not be reflective of the risks should the gas abstraction system fail or in the long term when the site can no longer support an abstraction system. Therefore the assessment of risks must again be based on a worst case estimate of 60%v/v methane and flow rates greater than $10m^3/hr$.

2.3.3 With respect to the assessment of risks posed by this waste mass to the proposed development two options are considered:

1) Failure of the gas abstraction system resulting in high methane concentrations and high flow rates: and
2) Long term situation when the gas generation can no longer support a gas abstraction regime. (no control on migration).

3 RECEPTORS

3.1.1 The proposed development currently comprises a poorly restored ironstone quarry. The proposal is to improve the restoration and install holiday eco lodge accommodation within the northern sector of the site with a wetland and pond in the south. The development involves the placement of selected restoration materials in the north together with the re-use of natural overburden materials in the south.

3.1.2 The eco lodges comprise prefabricated modular buildings which are raised above the ground level by approximately 300mm (see Appendix 1). This indicates that there is a naturally ventilated gap between the base of the buildings and the ground surface. Although not shown services will enter the ecolodge in discrete areas.

3.1.3 The eco lodges will be let on a holiday let basis. There are no proposed traditional constructed buildings present on the site.

4 PATHWAYS

4.1 Geology

4.1.1 The site is located on the Marlstone Rock Formation with the overlying Whiteby Mudstone Formation generally absent. The Marlstone Rock Formation has largely been removed by the quarry activities however it is understood that some residual material remains below the base of the existing landfill site (OCC and/or SITA) and the proposed development.

4.1.2 The underlying Dyrham Formation comprises pale to dark grey and greenish grey, silty and sandy mudstone, with interbeds of silt or very fine-grained sand. The presence of sand layers would suggest that this formation has the potential to transmit landfill gas however the permeability contrast between the overlying permeable limestones and sandstones of the Marlstone Rock Formation and the Dyrham Fm would suggest that the primary route of migration would be through the residual Marlstone Rock Formation as gas will follow the path of least resistance (most permeable). Consequently the Dyrham Fm is considered to offer a limited potential pathway.

4.1.3 Therefore, it is concluded that there are potential pathways though the residual geology which could constitute a pollutant linkage.

4.1.4 With respect to the former SITA area of the landfill, it is noted that the majority of the waste mass is located above the ground, this would mean that gas generated in this area is much more likely to escape into the atmosphere however gas migration at the boundary may still occur.

4.1.5 In consideration of the pathways, there is an area of open ground between the former SITA area and the proposed development. This area also appears to have been an old ironstone quarry backfilled with overburden material. This has two bearings on the pathway: firstly, the main permeable unit – the Marlstone Rock Formation would have been largely removed reducing the potential for lateral migration; secondly, this area of effectively disturbed open ground may allow trapped landfill gas to vent to atmosphere rather than continued lateral migration towards the development.

4.1.6 The extent to which a pathway may exist cannot be demonstrated by current monitoring data due to the current operation of gas management techniques at the site. Therefore any such monitoring data would not be valid in the assessment of this as a long term pathway.

4.1.7 In summary the geological understanding is such that a pathway for gas migration from the adjacent landfills to the boundary of the development cannot be ruled out under worst case (failure of the gas abstraction network) scenario.

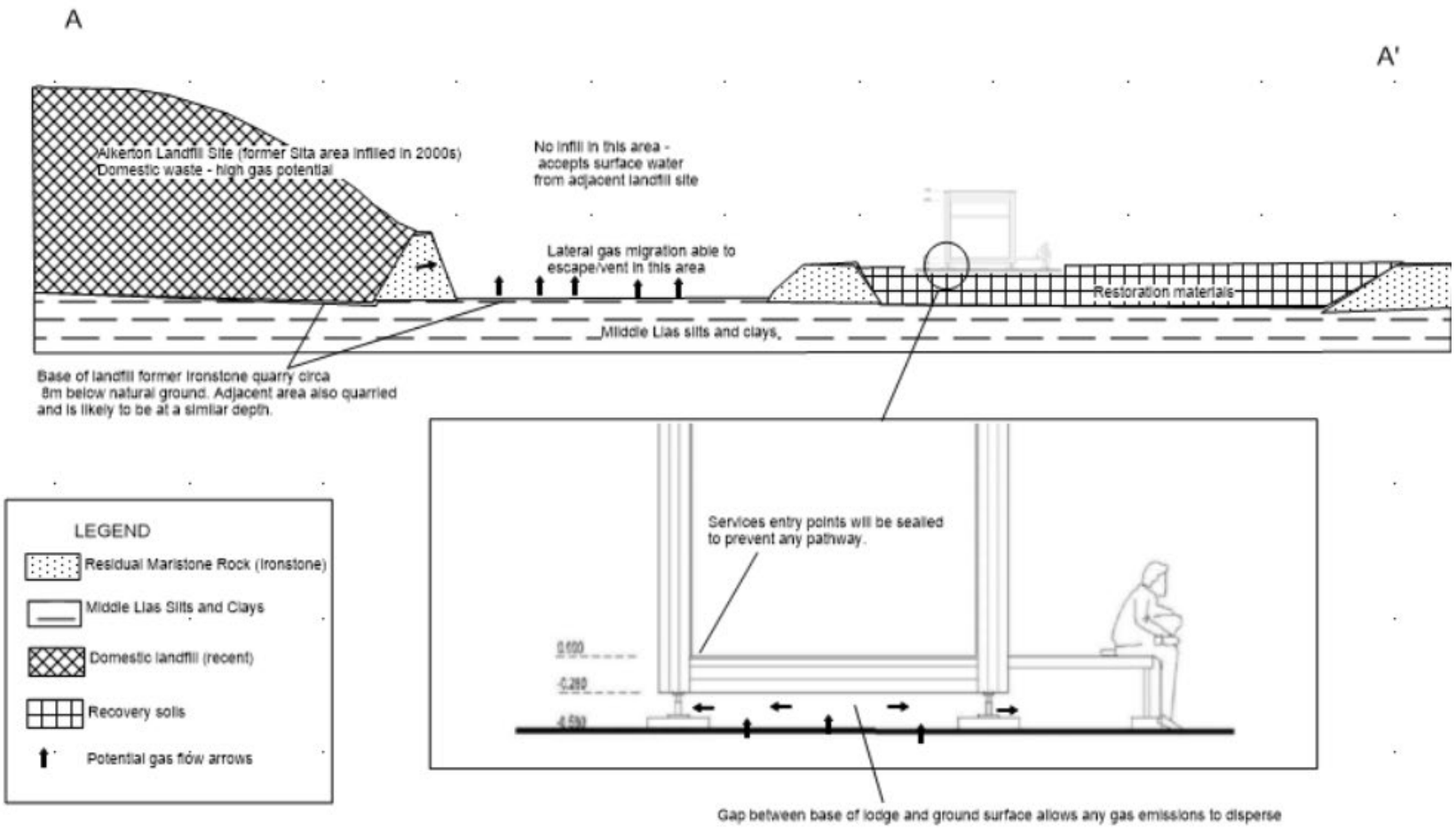
4.2 Building construction/ pathway.

4.2.1 This next section considered the pathway from the ground to the proposed eco lodges. The schematic cross sections presented below indicate that the eco lodges are raised above the ground surface by 300mm. Two cross-section have been generated to review the risks associated with each area of the adjacent landfill.

4.2.2 Section A-A is adjacent to the former SITA landfill area which has the potential to have significantly higher gas generation rates than the historic area of fill. The schematic illustration includes the presence of the open ground between the site and the development. Pathways considered are the potential for landfill gas entering the eco-lodge building.

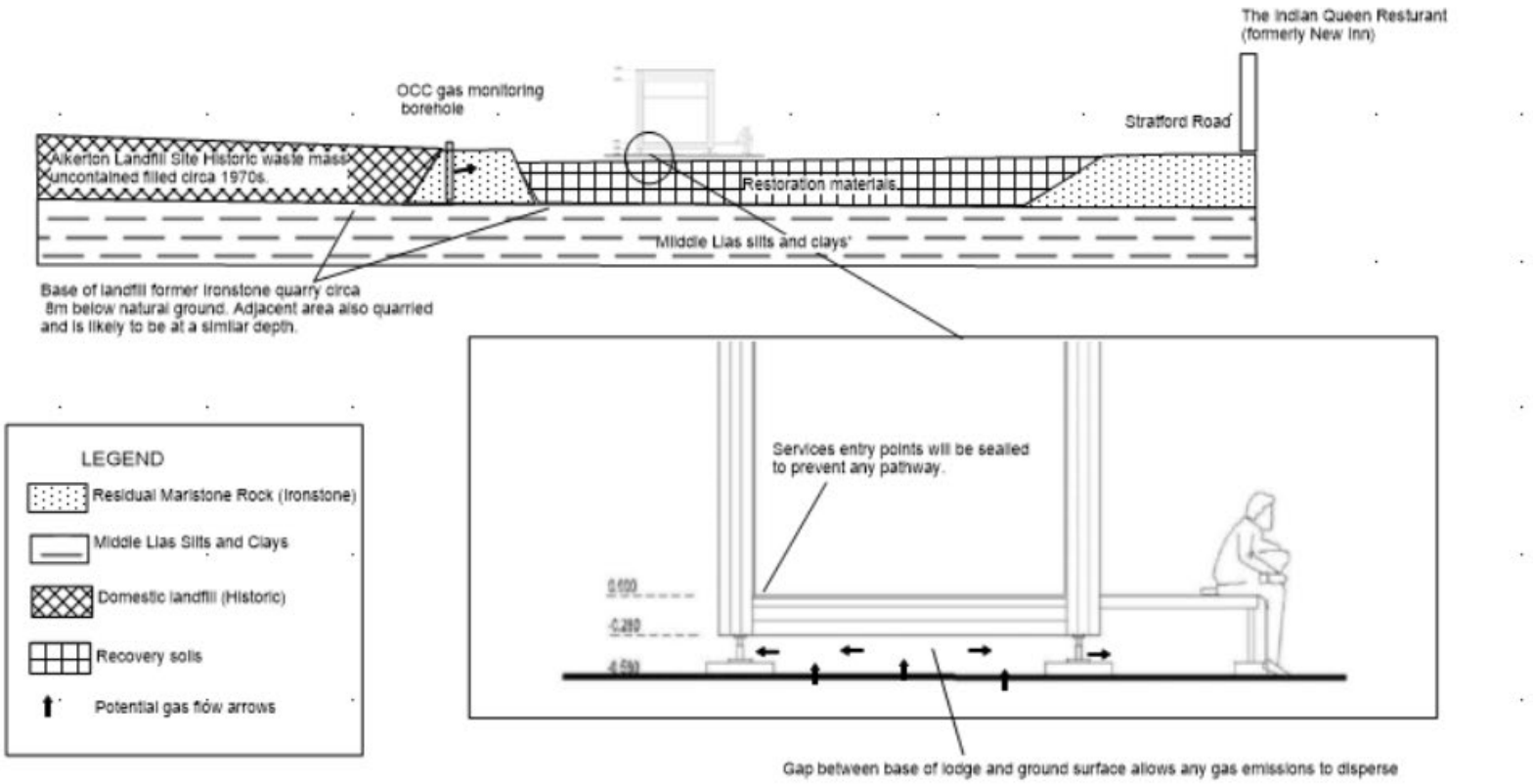
4.2.3 Section B – B illustrates the potential pathways in the north of the proposed development where the historic waste mass is immediately adjacent to the proposed development, however, it is recognised that in relative terms this area will have a lower gassing potential.

Potential Gas Migration Pathways



Potential Gas Migration Pathways

Section B-B'



4.2.4 Both cross-sections clearly indicate the void between the ground and the property above. This naturally vented void is key in breaking the potential pollutant linkage between the landfill gas source and the receptor.

The naturally vented (not enclosed) void will prevent the build up gas between the property and allow any gas seepages to disperse into the wider environment. Due the fact that this void is not enclosed, the emissions flow rate of gas will not change the risks. Therefore it is considered that this void (naturally ventilated) effectively breaks any pathways between subsurface gas migration and the property itself.

4.2.5 Due consideration need to be given to the service points in the property. These should be sealed, however as there is 300m of services exposed between the ground surface and the eco lodge any gas within the service channel will also vent into the exposed void.

4.2.6 Manholes and sub-ground structures such as service ducts and the package water treatment plant should be manged with the view that there may be the potential for ground gas to enter these structures. Whilst these structures are not seals, a standard confined space atmosphere check should be undertaken before entering.

5 SUMMARY AND CONCLUSIONS

5.1.1 In summary, the report acknowledges that the adjacent landfill site represent a potential source of landfill gas both currently and in the future. In consideration of the risks posed by the adjacent site, the worst gas scenarios have been considered which include high gas concentrations with high flow rates representative of failure of the gas abstraction system under current conditions. The report also considers the point in there future where gas abstraction techniques cannot be used to control the lateral emissions. Under both of these scenarios, the current perimeter gas monitoring is not valid to represent the risks to the proposed development and therefore this information was not required to aid this assessment

5.1.2 The report indicates that the residual geology has the potential to transmit gas laterally towards the development however the presence of an open void (300mm) between the ground surface and the modular building is such that there is no pathway for gas to enter the property.

5.1.3 Site management plans should make clear that there is the potential for gas to enter any sub-ground structure present at the site.

5.1.4 In conclusion the risk assessment has indicated that the design of the eco lodges is such that there is no pathway between the ground surface to the lodges themselves and therefore the presence of this development is not considered to be at risk from the adjacent landfill site. It therefore follows that the presence of this development should not materially impact on the management of landfill gas at the adjacent sites.

Appendix 1

Eco Box Illustrations

Please note the following visualisations are illustrative. The proposed buildings for Alkerton will not include the roof balcony or solar panels. They will instead incorporate a green roof system.

Appendix P3: Background Information on the Holiday Eco Lodges (Smart Eco Living)

The Cabin (25m^2) (Figure P5 style A)

Note: dimensions on the illustrations may alter to fit specified floor space

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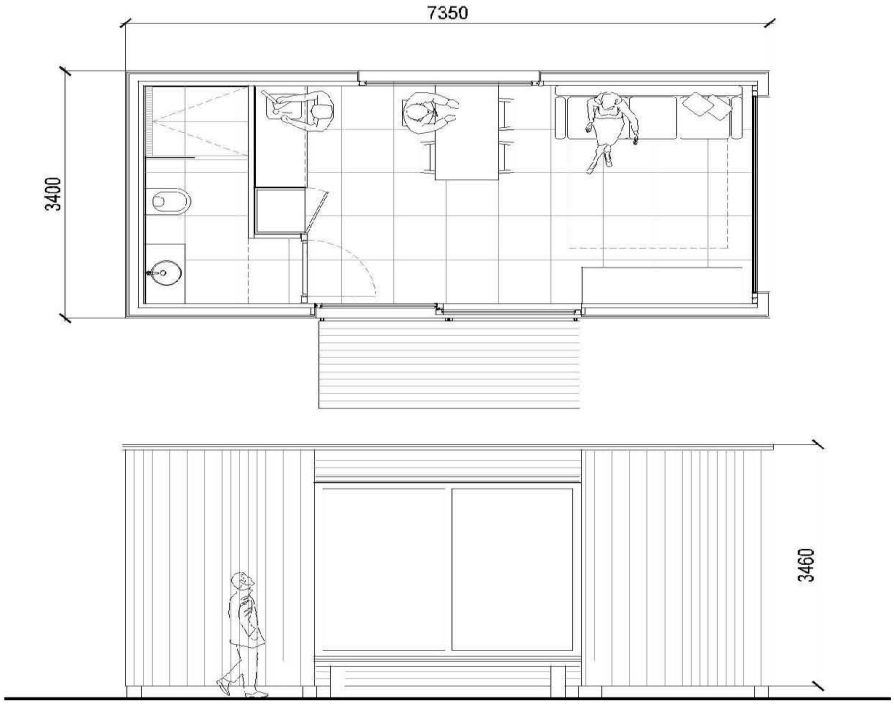
MAIN FEATURES OF THE BUILDING

Building: One storey wooden modular living space. Industrially produced and delivered to the customer ready to be installed by us.

Net surface - Outside walls excluded – inside walls included m² 25

MODULAR LIVING – SINGLE UNIT – ECO BOX – 25 SMQ PLAN AND MAIN FAÇADE



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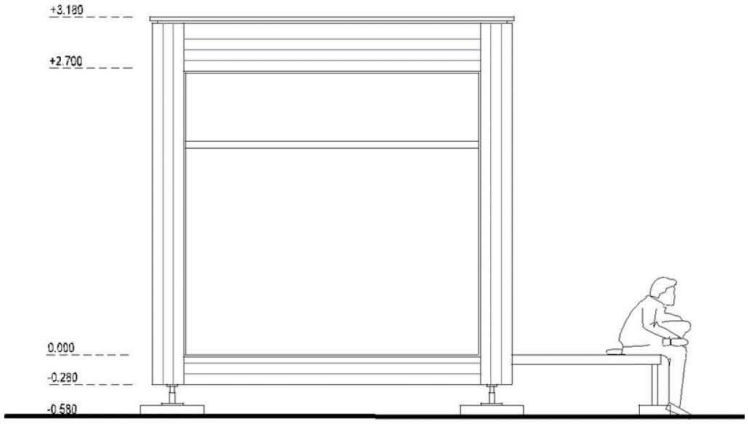
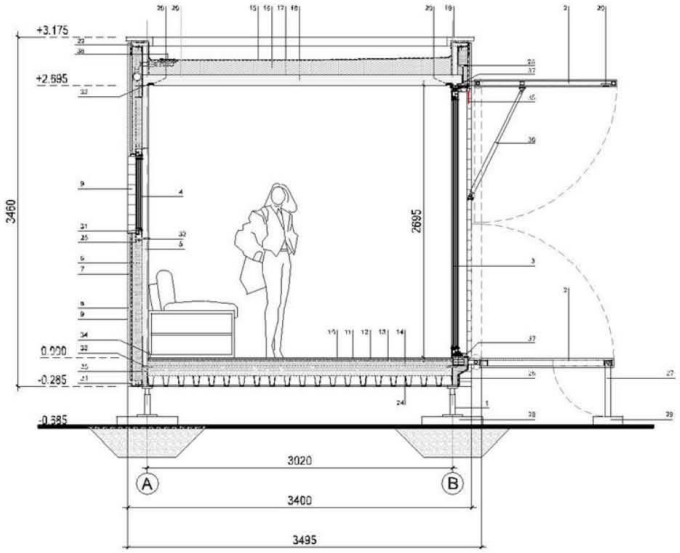
MODULAR LIVING – SINGLE UNIT – ECO BOX – 25 SMQ SIDE FAÇADE



MODULAR LIVING – SINGLE UNIT – ECO BOX – 25 SMQ SECTION



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The Deck House (35m^2) (Figure P5 style B)

Note: dimensions on the illustrations may alter to fit specified floor space

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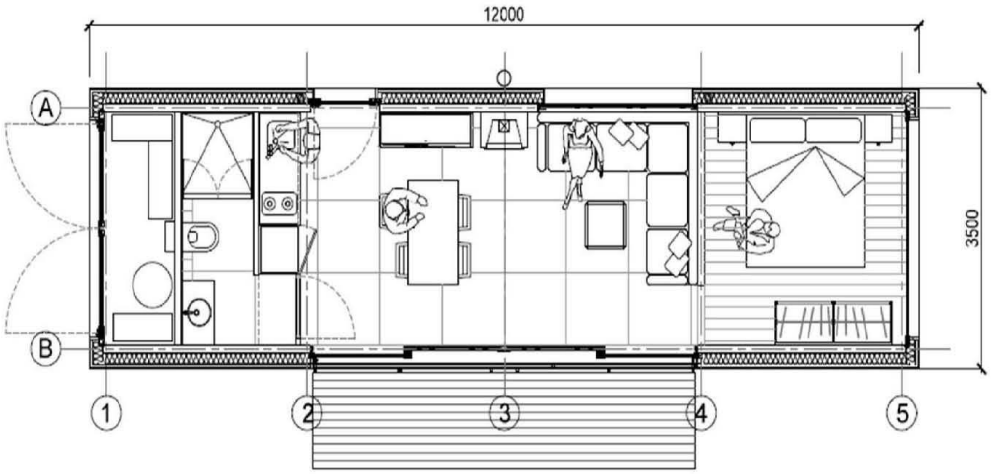
MAIN FEATURES OF THE BUILDING

Building: One storey wooden modular living space. Industrially produced and delivered to the customer ready to be installed by us.

Net surface - Outside walls excluded – inside walls included m² 35

MODULAR LIVING – SINGLE UNIT – ECO BOX – 35 SMQ PLAN AND MAIN FAÇADE



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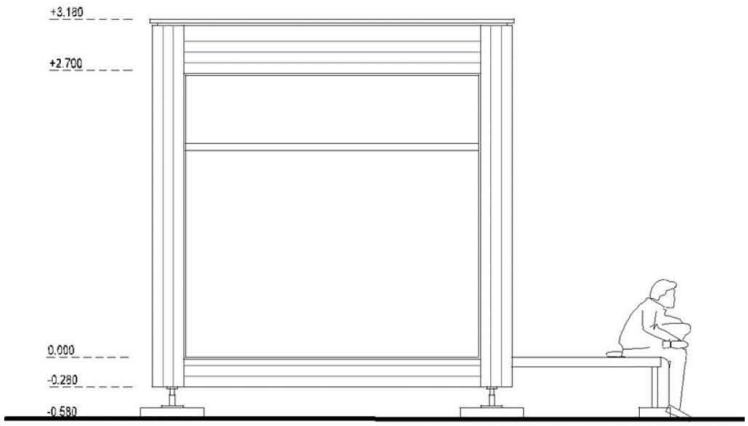
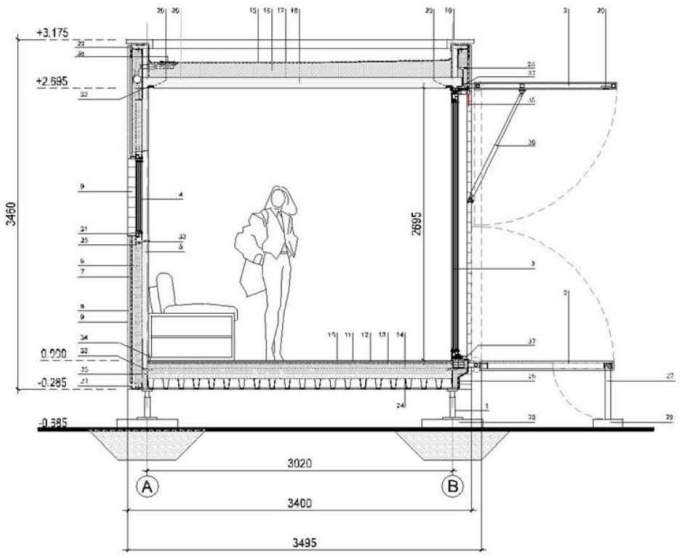
MODULAR LIVING – SINGLE UNIT – ECO BOX – 35 m² SIDE FAÇADE



MODULAR LIVING – SINGLE UNIT – ECO BOX – 35 m² SECTION



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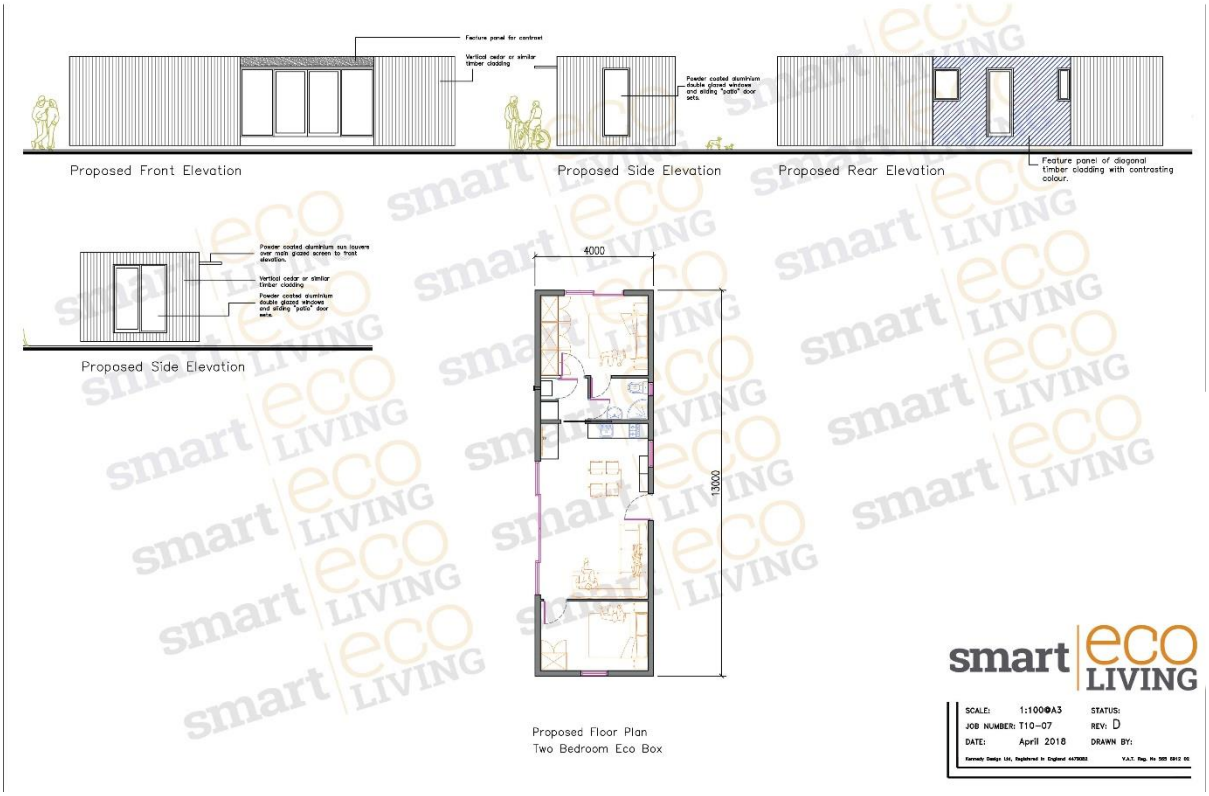
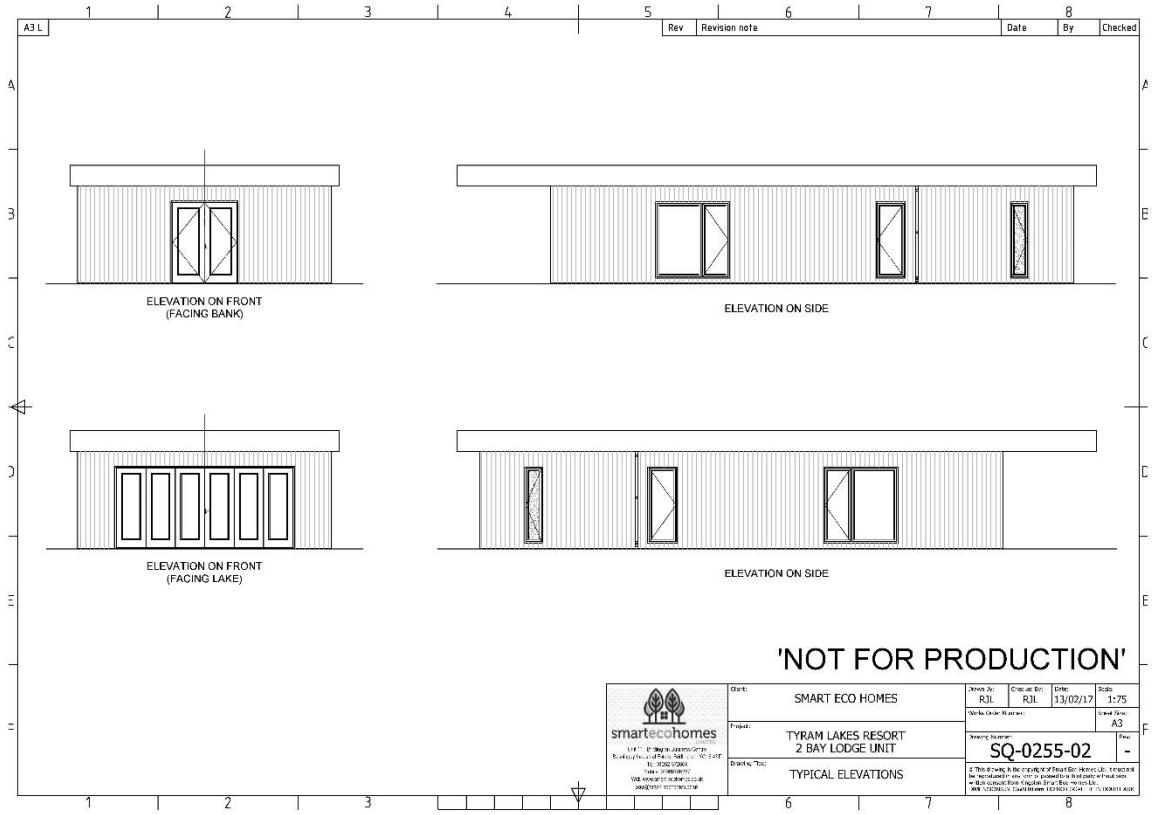
The Chalet (50m^2) (Figure P5 style C)

Note: dimensions on the illustrations may alter to fit specified floor space

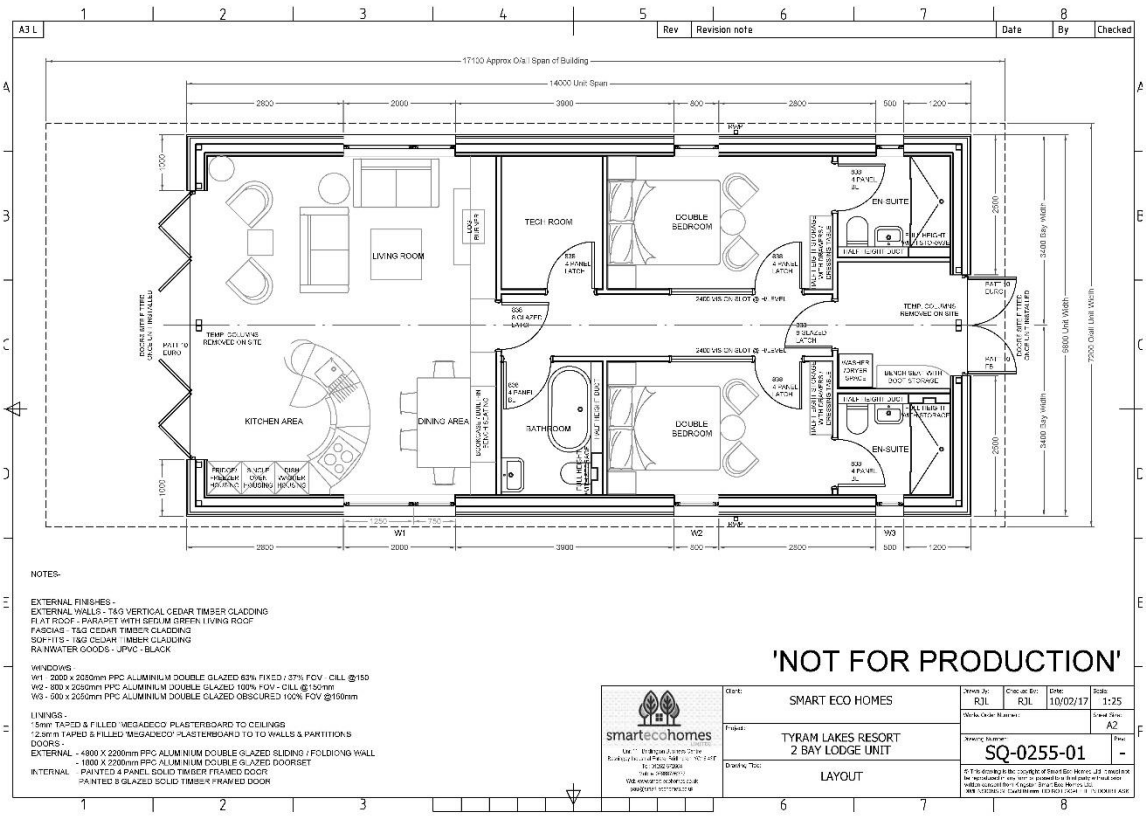


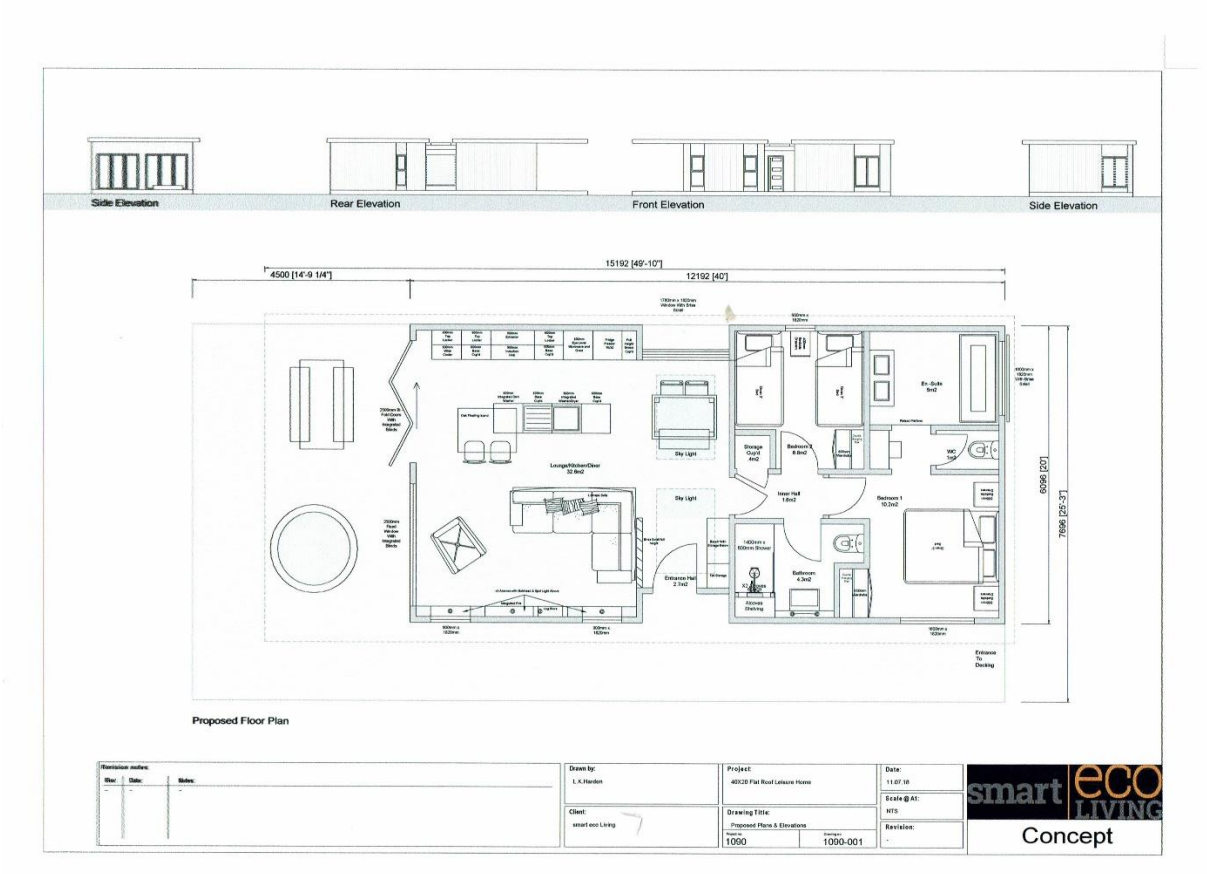
The Lodge (80m^2) (Figure P5 style D)

Note: dimensions on the illustrations may alter to fit specified floor space



Appendix P3: Background Information on the Holiday Eco Lodges (Smart Eco Living)





Above plan is option layout for The Lodge (80m^2) (Figure P5 style D)

Example specifications (to be altered to fit Passivhaus principles)

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1.2 Internal Partition Bearing
Walls assembled in factory as follows:
•100mm timber frame – birch covered – treated with protective oil

1.3 Interior Walls (non-structural)
Walls assembled in factory as follows:
•100mm timber frame – birch covered – treated with protective oil

1.4 Floor
Composition from the top to the bottom of the floor slab:
•Timber laminate flooring throughout with non-slip version in the bathroom
•Underfloor Heating (option)
•XPS insulation panels 25mm
•Vapour barrier
•Floor thermal insulation with PIR panels – Kingspan 120mm
•Corrugated metal sheet

1.5 Roof
Roof composition from the ceiling inside:
- Birch ply finish
- Baton
- Vapour barrier
- Roof thermal insulation with PIR sloped panels – Kingspan of 120/170
- Waterproof membrane in EPDM

1.6 Façade Elements (option)
On the façade, the following elements if chosen will be provided:
- Wooden louvres when opened become a terrace and canopy in front of the living room area

2. Internal Finishing, Windows and Doors

2.1 Wall Finishing
- Painting 2 x protective oil
- Tempered glass in the toilet

2.2 Floor Finishing
- Living area, dining room, bathroom laminate floor throughout
- Tile and carpet finish available (on request)

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2.3 Windows and External Doors

- Aluminium frame 67 mm U ≤ 1.3 W/(m2*K) or similar PVCu
- Glass: Double glazed unit: 46 mm (6 Low-e+14+6CF+14+6 Low-e) - U ≤ 1.0 W/(m2*K)
- U value ≤ 1.4 W/(m2*K)
- Triple glazed (option) available

2.4 Internal Doors

- Soundproof MDF painted door for toilet room

2.5 Sanitary Equipment

- WC: Villeroy&Boch Subway 2.0 wall mounted L=560 mm W: 360 mm
- Sink: Villeroy&Boch Subway 2.0 vanity washbasin white W=800 mm D=470 mm
- Taps: Hansgrohe series Focus or similar approved
- Shower Set and Tray: Hansgrohe Croma 100 or similar approved

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2.6 Light Fixtures and Accessories

- Dimmable LED lamps low consumption in living room, bedroom and toilet

- Switches and sockets Axolute or similar approved

2.7 Electrical and Low Voltage Systems

Electrical and low voltage systems include:

- Smoke detector with cabling
- Air extractor in bathroom with humidity sensor
- 2 thermostats for separate regulation of temperature in each room
- Electrical cabling, switchboard, lamps, switches and sockets
- Nest (option) if required

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2.8 Kitchen with Appliances

Fully equipped kitchen with A rated appliances

Choice of:

- Ceramic hob ☐
- Oven ☐
- Cooker hood ☐
- Fridge ☐
- Dishwasher ☐
- Stainless steel sink ☐
- Chromed metal mixer tap – automatic boiling water ☐

3. Transport and Installation

3.1 Transport of Modules

- Transport of module is included in the offer. Prices shown are delivered UK

3.2 Module Installation

- N 10 concrete foundations plinths will be delivered but not installed
- Smart Eco Living will provide all information regarding module geometry and loads necessary for the calculation, construction and installation of the foundation plinths

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The Chalet

bright & associates
landscape and environmental consultants
Pear Tree House Dovaston Oswestry Shropshire SY10 8DP
01691 682 773 www.bright-associates.co.uk
Registered Practice Landscape Institute

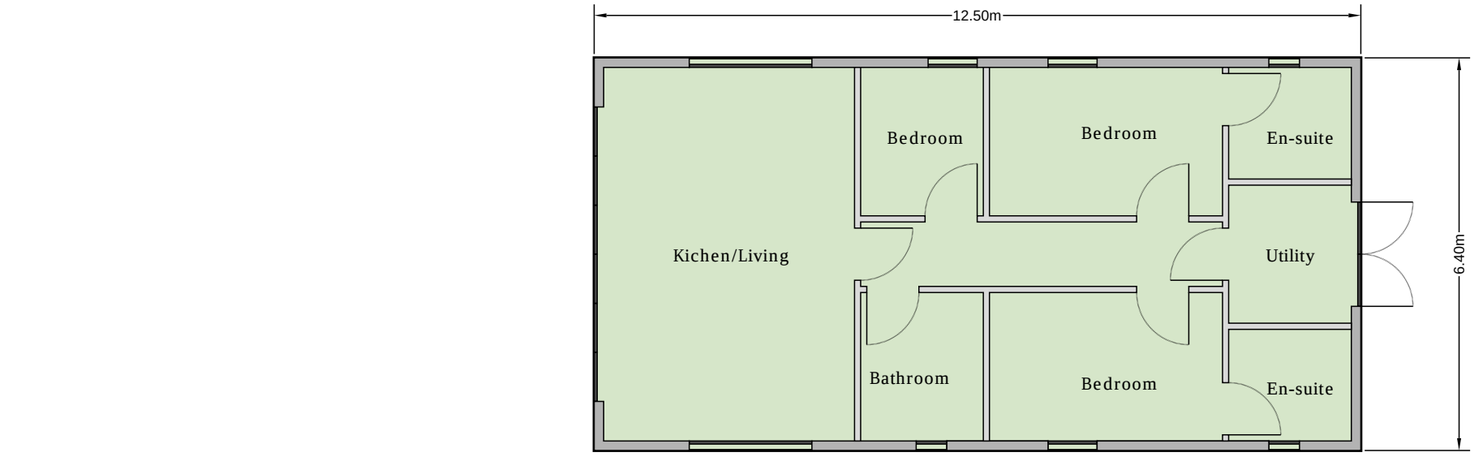
Client/Site:
A.T. Contracting Ltd.
Alkerton Quarry

Project:
Eco Lodges

CAD Ref:	Version:	Drawn by:
AL1198-D14v1	1	RB
Scale: 1:100 Print at A3	Origin Date: October 2021	

Title:
The Chalet
Plan and Elevations

Drawing:
Figure P3-2



The Lodge

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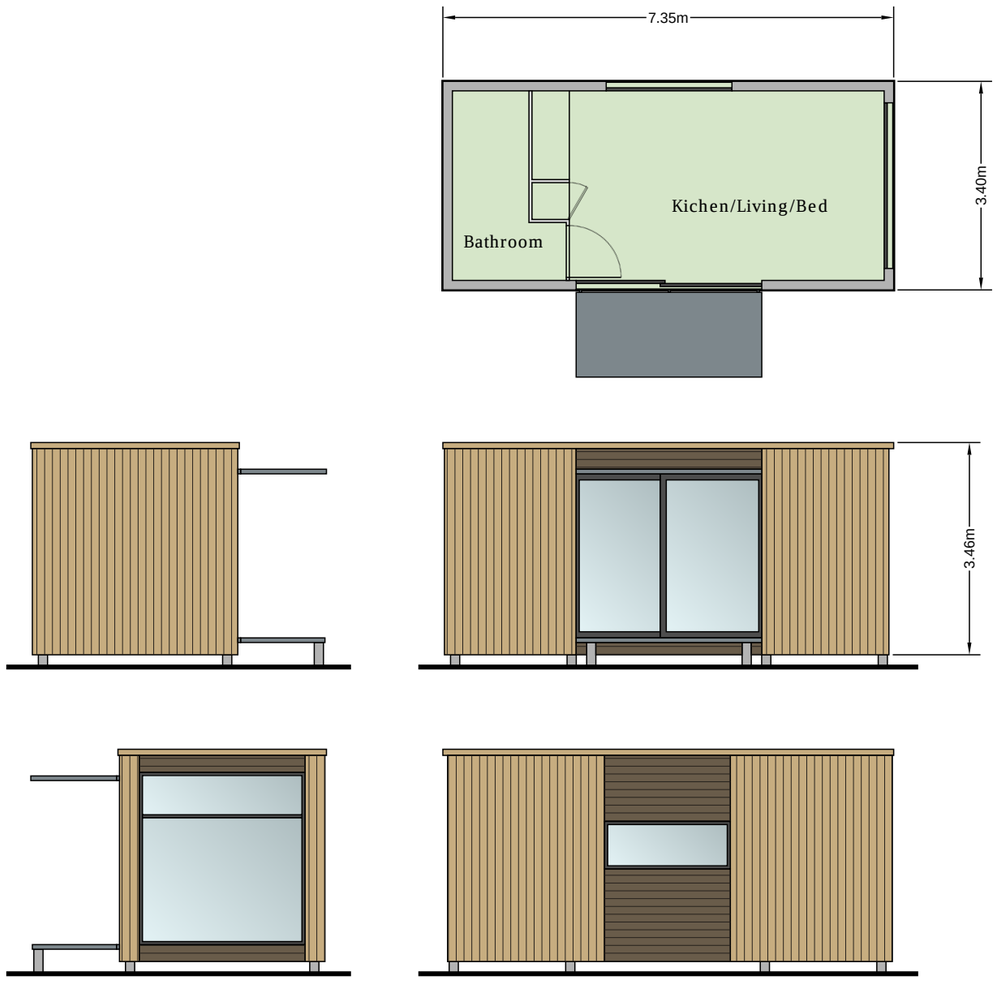
Eco Lodges

CAD Ref:	Version:	Drawn by:
AL1198-D14v1	1	RB
Scale: 1:100 Print at A3	Origin Date: October 2021	

Title:
The Lodge
Plan and Elevations

Drawing:
Figure P3-3



The Cabin

The Deck House

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landscape and environmental consultants
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Registered Practice Landscape Institute

Client/Site:
A.T. Contracting Ltd.
Alkerton Quarry

Project:
Eco Lodges

CAD Ref:	Version:	Drawn by:
AL1198-D14v1	1	RB
Scale: 1:100 Print at A3	Origin Date: October 2021	

Title:
The Cabin and The Deck House Plan and Elevations

Drawing:
Figure P3-1

Caulmert
engineering environmental planning

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