CRAIG YR HESG QUARRY

Section 73 Time Extension

Environmental Statement

Non-Technical Summary

Volume 3

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ENVIRONMENTAL STATEMENT

NON-TECHNICAL SUMMARY

VOLUME 3

CRAIG YR HESG QUARRY

Section 73 Application for Time Extension

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1.0 INTRODUCTION

1.1 Background

A planning application has been submitted to Rhondda Cynon Taff County Borough Council (RCT), which seeks permission to continue the operation of Craig yr Hesg Quarry (the Quarry) without complying with the current planning conditions which require that the winning and working of minerals or depositing of mineral waste shall cease by 31st December 2022. The application seeks to extend the time limit for such quarrying operations by 6 years to 31st December 2028.

Linked to the time limit for quarrying operations, other conditions currently require the submission of a final restoration scheme for the quarry by 31st December 2022, and the implementation of the approved scheme within 2 years of the date of approval or by 31st December 2024, whichever is the sooner. The application also seeks to make consequential changes to these conditions which would require the submission of a restoration scheme by 31st December 2028 and the implementation of the scheme within 2 years of the date of approval or by 31st December 2030, whichever is the sooner.

An environmental impact assessment (EIA) has been undertaken in support of the application, and the results of the EIA are set out in an Environmental Statement (ES). This document comprises a Non-Technical Summary (NTS) of the ES.

The ES draws upon the results of an EIA undertaken in 2010 in support of an application required by the Environment Act to update the planning conditions regulating operations at the Quarry. This is a standard requirement which applies to all quarries as a 'Review of Old Mining Permission's' commonly referred to as a 'ROMP' application. RCT determined the ROMP application in April 2013 with the issuing of an updated schedule of planning conditions.

In May 2015 a planning application was submitted for a western extension to the Quarry and the consolidation of the existing permissions into one overall permission covering the existing quarry and extension area. The application included a request for an extension of the current December 2022 end date for quarrying as part of a proposal for the extraction of an additional 10m tonne of sandstone, together with the extraction of the remaining reserves in the existing quarry. If permission had been granted, this would have superseded the current ROMP schedule of conditions, and the quarrying end date which is included in that schedule as condition 1.

However, in July 2020, RCT refused planning permission for the western extension development (and indirectly the associated time limit extension). An appeal against that decision was lodged in December 2020, and the matter will be determined by the Planning Inspectorate in due course.

In the meantime, there are remaining reserves at the Quarry of some 3.3m tonnes as at 31st December 2020. Assuming a continuation of recent sales of 400,000 tonnes per annum, the existing reserves would provide a remaining life of some 8 years i.e., some 6 years beyond the current end date of December 2022. It also follows that in the absence of a permission to extend the life of the quarry by the requested 6 years, a reserve of some 2.5m tonnes would remain unworked at the quarry as at December 2022.

If the appeal against the refusal of the western extension development is allowed, then the time limit issue will have been resolved by that means. However, as a contingency, and to avoid the sterilisation of much needed currently permitted reserves, an application is being submitted to extend the current time limit to allow for the extraction of the remaining permitted reserves.

The Quarry has been in existence since the late 1800's and has been operated in its current form for several decades. The Quarry has reached its full lateral and depth limits, and a phased quarry development scheme and restoration strategy is in place. No changes are proposed to the approved quarry development and restoration scheme. Similarly, no changes are proposed to the current working practices or processing arrangements, or to the controls on the plant separately in place via an Environmental Protection Act Permit

The existing suite of 49 planning conditions imposed via the ROMP Review have been deemed adequate by RCT to regulate the ongoing operation, and other than the quarrying time limit conditions 1-4 (and consequential changes to the restoration scheme time limit conditions 45 and 46), it is not proposed

to seek to amend any of the other existing planning conditions. The existing planning conditions which regulate hours of working, noise, blasting, dust and air quality, and surface water and groundwater protection would remain in place to regulate the operation for the additional timescale requested but would be updated where appropriate.

1.2 The Application Site

The application site comprises the combined areas covered by four mineral extraction planning permissions and includes peripheral woodland along the southern, eastern and north western sides of the plant site, and to the north of the main quarry area, together with a more substantial area of scrub woodland to the south west of the quarry as illustrated on the aerial photograph produced as **Figure 1.1** below. These areas of woodland do not form part of the operational area and would not be disturbed as part of the ongoing development. There are also some very small areas at the periphery of the site which appear to now form part of residential dwellings and/or small businesses unconnected with the Quarry and which are not part of the operational area.

In practical terms the operational quarry area includes other areas which have been historically quarried and or disturbed as part of the quarrying operations. Further quarrying will not take place in these areas, but the EIA has considered the quarrying and related operations within the overall footprint of the existing disturbed quarry area, together with the restoration of that overall area.

For the avoidance of doubt, the application site does not include the separately proposed western extension area, and the application is confined to seeking to amend the time limits imposed in the current schedule of planning conditions.

The Quarry itself (shown on Figure 1-1) is situated on the western side of the Taff Valley, some 1km north of the built-up area of Pontypridd. The village of Glyncoch lies beyond the northern boundary of the quarry. Locally, the Quarry is bounded to the north by the Glyncoch rugby football ground and clubhouse; to the west / northwest by former grazing land which comprised the separately proposed western extension area; to the southwest by the prominent wooded ridgeline of Coed Craig yr Hesg, which overlooks the town of Pontypridd; and to the east by a narrow corridor of woodland between the site and the B4273 Ynysybwl Road.

The quarry processing plant in the eastern area of the site comprises a crushing and screening plant and asphalt plant / roadstone coating plant. The main quarry area lies to the west, with a series of quarry faces and benches which are being developed in a general north-westerly direction within the limits of the planning permission.

1.3 Time Extension Application

The application is a straightforward request to continue the currently permitted development without complying with conditions which impose a time limit on quarrying and restoration operations.

The application seeks to replace these conditions with revised conditions which would refer to a revised end date for quarrying of 31st December 2028, a revised end date for the removal of plant, machinery, buildings and residual stocks of 31st December 2029, and a revised end date for the completion of restoration of 31st December 2030.

Other than changes necessary to reflect these revised end dates for quarrying and restoration activities no changes are proposed to any of the remaining existing planning conditions, and, in particular, no changes are proposed to the approved working and restoration scheme, to the pattern of output, or to the hours of working: the change is confined solely to the time limit to allow the remaining permitted reserves to be worked, and to avoid what would otherwise be an unnecessary sterilisation of permitted reserves.

1.4 The Non-Technical Summary

An Environmental Impact Assessment (EIA) has been undertaken to consider the environmental effects of the proposed development. The results are presented in an Environmental Statement which accompanies the planning application. This document is a non-technical summary (NTS) of the Environmental Statement (ES), and presents the main findings of the

Environmental Impact Assessment (EIA) in non-technical language. The NTS, as the title suggests, provides only a brief summarised account of a large amount of technical reports and data.

However, it is intended to provide a sufficient overview of the development scheme, and the environmental issues which would be associated with the development, to allow the reader to gain an understanding of the key issues.

The NTS comprises Volume 3 of a comprehensive submission which consists of:

- Volume 1: Environmental Statement (ES);
- Volume 2: Technical Appendices; and
- Volume 3: Non-Technical Summary of the ES (i.e. this document).

1.5 Technical Studies

The EIA has drawn upon the EIAs and ES's undertaken in connection with the 2010 ROMP application to update the planning conditions in place at the Quarry, and the 2015 western extension application, with updates to landscape and visual effects, ecology, noise, air quality and traffic to reflect current circumstances.

Other topics which were addressed in the previous EIA's are also briefly addressed in the current ES for completeness, namely ground and surface water, blast vibration and cultural heritage.

Socio economic, wellbeing and health issues are also addressed noting the socio-economic benefits associated with a continuation of the development for the requested extended period.

1.6 Document Availability

The ES volumes are available for inspection at the offices of Rhondda Cynon Taff CBC, Planning Department, Sardis House, Sardis Road, Pontypridd, CF37 1DU

Copies may be purchased from the Applicant's Agents SLR Consulting Ltd, Fulmar House, Beignon Close, Ocean Way, Cardiff CF24 5PB (Tel 20920 491010).

The cost of volumes (inclusive of VAT and postage) is:

- ES Volumes 1 – 3 (and application plans)
  Printed versions £100.00
  CD version £5.00

- Volume 3 NTS: (Printed version) £10.00
  CD version £5.00

Figure 1-1 – Aerial Photograph

2.0 THE PROPOSED DEVELOPMENT

2.1 The Development Scheme.

The Quarry has reached its full permitted lateral and depth limits, and no new areas of quarrying would be involved with a continuation of the approved scheme. The remaining development would be confined to working back the faces and benches at the medium and lower levels of the quarry to the defined final positions, followed by the implementation of the approved restoration scheme.

The current circumstances at the quarry are illustrated on **Figure 2.1,** based upon a topographic survey of the site as at December 2020.

The key features within the existing quarry are the development of the faces and benches in the north western area of the quarry, with faces generally at levels of 140m, 150 /155m, 165 / 170m and 180 / 185m AOD, and a quarry base level in the north west at circa 135m AOD.

A system of internal haul roads run from the quarry area to the primary crushing plant located at the northern end of the plant site with a feed hopper at the 140m AOD level.

A separate access has been created from the western side of the plant site into a dust / quarry fines stockpile area.

A quarry sump is present in the south eastern area of the quarry as part of the surface water drainage arrangements.

Quarrying has been completed on the upper quarry face (185 AOD) along the northern side of the quarry, and future quarrying in that area will be associated with working the middle and lower benches back to their final positions. Quarrying will also progress to the final position along the western boundary of the quarry, together with the deepening and broadening of the floor of the quarry within the defined footprint to the approved minimum 100m AOD level.

The quarry development scheme is shown on 'intermediate' and final quarry layout plans, produced as **Figures 2.2 and 2.3** at the end of this chapter.

2.2 Processing Plant

The proposed time extension application does not propose any variation to the current processing arrangements. The stone quarried from the current working area would continue to be transported to the processing plant by dump trucks from where it is discharged into a primary crusher feed hopper located at the northern end of the plant site, at a level of 140m AOD.

The primary crusher reduces the stone in size, from where it is fed by enclosed conveyor to secondary and tertiary crushers and series of screens, which produce a range of single sized aggregate. The processed stone is moved by enclosed conveyors to a series of hoppers for loading out to road going vehicles, or to product stockpiles within the plant site.

In addition to the quarry processing plant, the plant site includes an asphalt plant / roadstone coating plant following the implementation of a permitted development approval for a new replacement plant issued by RCT in November 2013 (ref 13/0825/23). The time extension application includes a request for the continuation of the operation of the asphalt plant for an extended duration, in conjunction with the aggregates processing plant.

Both plants are regulated by an Environmental Permit issued by RCT which imposes detailed requirements relating to the control and monitoring of emissions from the plants and associated activities.

2.3 Hours of Operation

It is proposed that operations will be undertaken in accordance with the hours of working set out in the current schedule of planning conditions (ref 08/1380/10, April 2013) summarised below:

Table 2-1 Approved hours of working

Operations	Monday to Friday	Saturday	Sunday/Public Holidays
Quarrying Operations (except in emergencies)	07:00 to 19:00	07:00 to 16:00	No working
Blasting	10:00 to 16:00	No blasting	No blasting
Drilling (above 180m AOD)	10:00 to 16:00	No drilling	No drilling
Drilling (below 180m AOD)	07:00 to 18:00	No drilling	No drilling
Soil stripping or bund creation/removal	08:00 to 17:00	08:00 to 13:00	No operations
Other than vehicles associated with manufacture of coated road stone, production of ready mix concrete or servicing etc of plant, no vehicles to enter/leave quarry except between hours:	07:00 to 19:00	07:00 to 16:00	No vehicle movements other than as specified opposite.

2.4 Output and Traffic Movements

The hours of operations described in section 2.3 above establish a working week of 5.75 days. When excluding public holidays and planned shut-downs for extended breaks (such as at Christmas), it is established that there is a total of 287.5 working days per annum.

Based on an assumption that was made for the 2015 quarry extension application of the average output of 400,000 tonnes material being transported in 20 tonne average payloads, this equates to 70 loads per full working day, which results in 140 total HGV movements per day on the local highway network. However, later analysis of weighbridge data indicates the actual average payload is 24 tonnes, which gives an average of 58 loads / 116 HGV movements per day.

These movements would be distributed throughout the day, with a notional 6 loads / 12 movements per hour when taking into account the maximum permitted operating hours at the site of 07:00 – 19:00 during the week, or 7 loads / 14 movements over the typical loading period of 07.00 – 17.00 based on the 140 movements per day. This reduces to an average of 5 loads / 10 movements per hour over a 12 hour working day and 6 loads / 12 movements per hour when averaged over the 10 hour period 07:00 – 17:00 during which the majority of transport activity occurs, based on 116 movements per day.

Other than occasional vehicles meeting local demand, all traffic heads to /comes from the south along the B4273, A4223 and A470.

2.5 Water Management

The current water management system at the Quarry comprises:

- A drainage system for the eastern side of the quarry comprising the stockpile area, processing plant area / office complex area; and
- A water management system associated with the main excavation and dust stockpile area.

Surface water from the processing / office complex area is dealt with via an existing system of settlement lagoons and an off-site discharge regulated by NRW by a consent issued in 2013 (Consent Number AF4029101).

Seepage from perched groundwater and rainfall / runoff into the main excavation makes its way to the quarry floor, via drainage channels and flows along haul roads. The water collected at the lower floor level freely seeps into the Pennant Sandstone and migrates downwards to the underlying local water table.

The proposed development will be a continuation of the existing programme of working the quarry benches and faces in a north-westerly direction to the limit of the current excavation footprint. The base level of the quarry will not extend below a floor level of 100 m AOD (save for a quarry sump), although the extent of the void area at this level will be enlarged. Water derived from rainfall and groundwater seepage will thus continue to be accommodated at the base of the quarry void from where it will seep into the underlying strata and water table.

Following the cessation of operations, management of surface water run-off within the quarry void would cease. It is anticipated that the quarry void will not flood but that inflow will continue to freely seep into the floor of the quarry and migrate to the underlying water table.

2.6 Restoration Strategy

The restoration strategy incorporates three main elements:

- To utilise on-site soils either for restoration planting in selected locations or to support natural regeneration in other areas. In each case the aim would be to reflect and extend the pattern of existing woodland adjacent to the site;
- To restore quarry benches and faces with a variety of treatments to enhance the ecological and landscape value of the site; and
- To restore the quarry floor using fine granular material / quarry waste and create smooth flowing contours for subsequent natural regeneration and development of species-rich grassland.

In view of the recognised ecological potential of restored mineral workings, the main objectives of the restoration proposals are ecological enhancement and nature conservation. In particular, natural regeneration is proposed wherever practicable, as also encouraged by Rhondda Cynon Taf Council during previous discussions about the site. Proposals for planting are also included, where practical to supplement or assist the process of natural regeneration and give greater habitat diversity to the restoration strategy.

Overall, the aim will be to create a sheltered valley (with grassland, scrub and woodland) to extend and compliment the semi-natural broadleaved woodland habitats found locally and take account of the site's landscape setting. This includes the Craig-yr-Hesg Local Nature Reserve (LNR) immediately to the south of the site, and Craig-yr-Hesg / Lan Wood Site of Importance for Nature Conservation (SINC) to the south and west.

Detailed specifications and proposals for the treatment of individual quarry faces and benches will be produced as they are formed and become available for restoration.

Natural regeneration would be utilised within the quarry floor and around most of the quarry benches, with subsequent successional development of a mosaic of bare ground, grassland, trees and scrub as dictated by the substrate layer. Areas of native tree and shrub planting would also be undertaken on certain benches and slopes in the north and east of the site where safe access is available.

There is approximately 2,275m3 of soil which has been stored in a bund to the west of the site and this would be used selectively on the quarry benches.

There is also quarry waste / dust that is being generated at the site and would be used to reprofile the floor and on the benches.

The restoration strategy is illustrated on **Figure 2.4** at the end of this chapter.

2.6.1 Quarry Faces: Restoration Treatments

Opportunities are likely to be available to retain attractive rock outcrops as crags, and to retain naturally occurring crevices and pockets in which different types of vegetation can locally establish. Quarry faces would generally be left to regenerate naturally, which would in part be enhanced by low scree slopes and crushed rock placed at the toe of faces, where practicable. Set within existing and proposed woodland, the faces would appear similar to natural outcrops occurring within woodland along the steep valley side slopes of the Taf, for example, within Coed Craig yr Hesg to the south of the site.

2.6.2 Quarry Benches: Restoration Treatments

Restoration work would commence on benches as soon as possible after they have been worked to their final positions and are no longer required for access purposes. The quarry benches would predominantly be restored through natural regeneration but using a combination of four bench treatments depending on the specific requirements of the area to be restored.

These treatments would comprise:

- Bench treatment 1 involving the retention of bare rock, with any existing remaining loose material to be retained, with no further treatment, allowing vegetation to re-colonise naturally.
- Bench treatment 2 involving placing a layer of granular material and fines taken from the quarry waste stockpile, but with no further treatment of this material once deposited, allowing vegetation to re-colonise naturally.
- Bench treatment 3 to be applied to the benches in the northern-most part of the existing quarry near to the plant site which have reached their final position and are beginning to weather. Part weathered rock and loose material in this part of the site would form the substrate for soiling. Quarry waste and subsoil available on site would be spread over the surface of the benches to variable depths up to 500mm, with the benches left to re-vegetate naturally.
- Bench treatment 4 involving the formal planting of trees and shrubs which would be of particular value in visually prominent locations where more rapid re-vegetation would be beneficial. The bench would be prepared with quarry waste and subsoil and topsoil, taken from the on-site stockpile which would then be suitable for native shrub and tree planting, and for natural colonisation.

The restoration strategy is consistent with the approved restoration strategy for the existing Quarry and would apply the same restoration treatments and principles as included in the currently approved restoration strategy.

Figure 2-1 Current Situation

Figure 2-2 Interim Quarry Layout

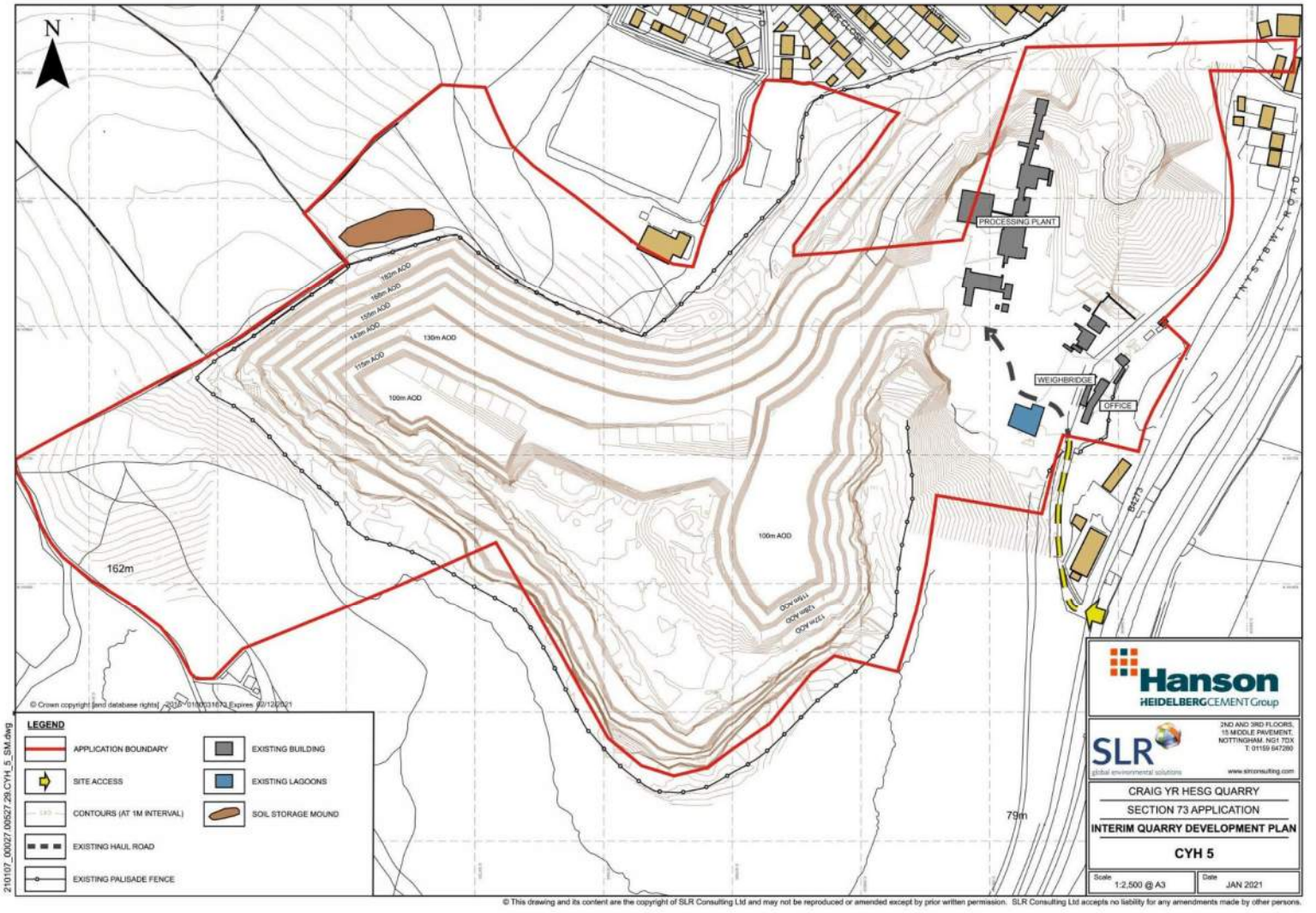


Figure 2-3 Final Quarry Layout

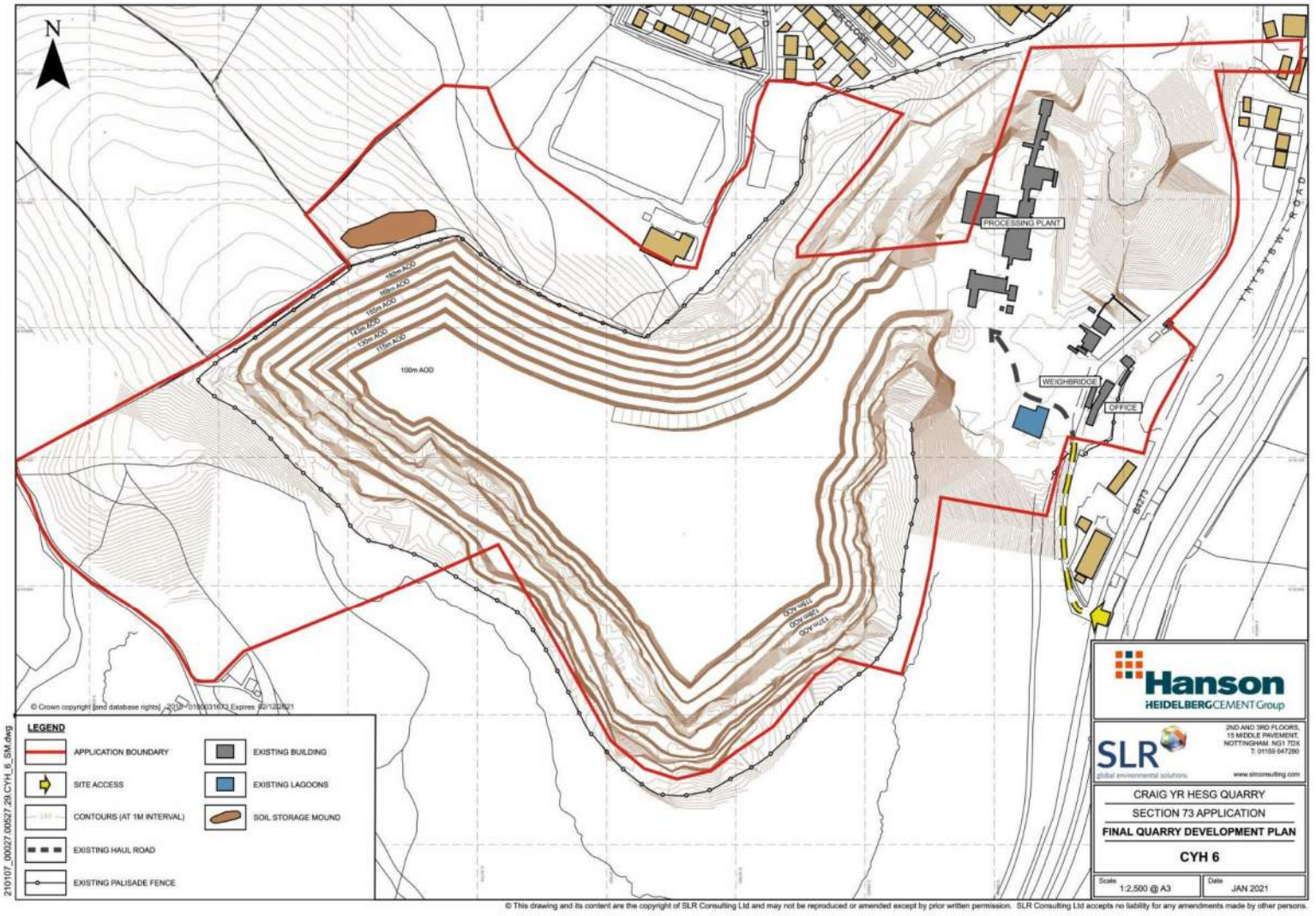
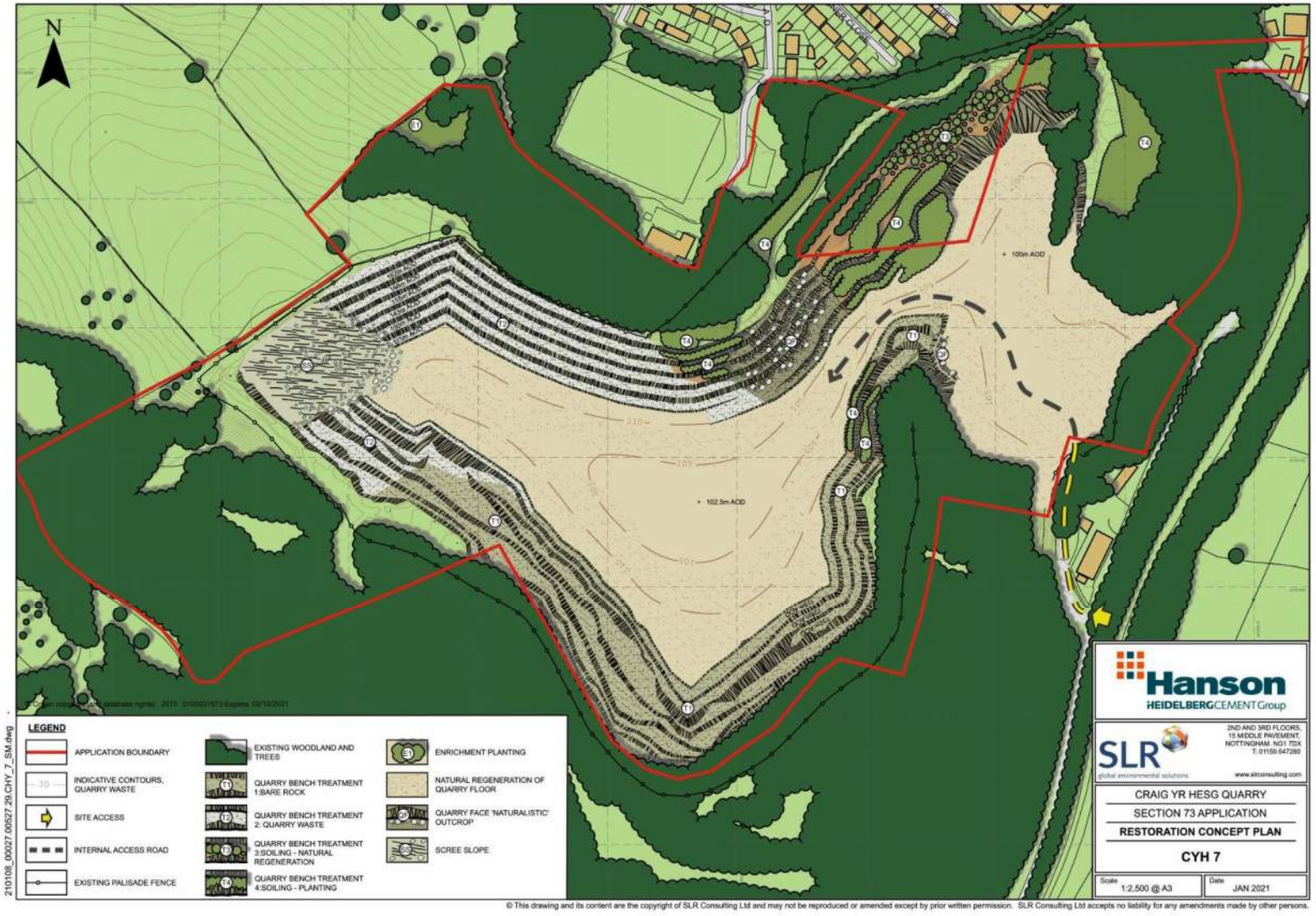


Figure 2-4 Restoration Strategy



3.0 SUMMARY OF ENVIRONMENTAL ISSUES

3.1 Introduction

The main Environmental Statement (ES) has considered the potential environmental effects of the proposed continuation of quarrying, processing and related operations at Craig yr Hesg Quarry for the requested extended time period. The studies have drawn upon existing mitigation measures and operational practices in place at the quarry, enforceable by the current schedule of planning conditions, the Environmental Permit relating to the plant, and the discharge consent licence which regulates water discharge from the plant site area of the quarry.

These measures and practices represent well-established controls which have been proven to work effectively, and which would continue in place for the requested extended duration of operations. The existing planning conditions imposed by RCT as part of the ROMP Review have been deemed by RCT to represent modern, effective conditions which are capable of ensuring that the development continues within 'acceptable limits' and "acceptable standards" which is the test which Welsh Government policy requires to be applied (ref Planning Policy Wales Edition 11: February 2021).

Based upon the studies undertaken, the underlying conclusion of the EIA is that the development could continue for the requested additional time period without giving rise to a 'significant' impact, and where effects could continue to be adequately mitigated based upon the existing conditions and controls.

These issues are summarised below. For each topic, the summary describes the key elements of the study which has been undertaken, the existing mitigation measures which have been incorporated into the development scheme or which will continue to be implemented as part of the ongoing development, and the assessed residual effects for the extended time period of operations.

3.2 Landscape and Visual Effects

3.2.1 Landscape and Visual Impact Assessment (LVIA) Study

The main landscape and visual elements of the proposed development include continued mineral extraction within the existing quarry void / footprint of disturbance in accordance with the currently approved limits but over an extended period of time, followed by progressive and then final restoration of the site in accordance with the currently approved restoration concept plan.

The site's infrastructure, access, plant and buildings associated with mineral processing, distribution and management would all continue during operational phases as existing, but over the requested extended period of time, after which time they would be removed (unless otherwise agreed with the LPA) and the areas restored in accordance with a detailed restoration scheme based upon the restoration concept plan (Figure 2.4).

These aforementioned elements form part of the currently approved working and restoration scheme, and the potential of the scheme to affect landscape character, elements and features within the site itself and also the character and visual amenity of offsite receptors in the immediate surrounding area was assessed as part of an EIA undertaken in 2010 as part of the ROMP Review to update the planning conditions in place at the quarry.

The current appraisal updates the findings of the 2010 ES and considers the effects on landscape character and visual amenity which would arise from a continuation of the mineral extraction operation for an extended time period, with an associated delay in the implementation of the restoration strategy.

The 2010 ES concluded that the landscape and visual effects associated with the development scheme would be generally negligible / slight adverse during the quarrying operations, reducing to slight beneficial at the restoration stage. The updated study thus considers whether these

previously assessed effects remain applicable, and whether it would be acceptable for the identified effects to continue for a longer time period.

The appraisal has been undertaken in accordance with the principles produced by The Landscape Institute and Institute of Environmental Management and Assessment's Guidelines for Landscape and Visual Impact Assessment, third edition (GLVIA3).

3.2.2 Landscape Impact

The physical disturbance of landscape elements and features at the application site as part of the extension of time for the operational phases and subsequent final restoration would be limited and neutral in nature, and in landscape terms, would not change from the approved quarry development scheme.

The implementation of the quarry development scheme over an extended time period would result in the following changes to elements and features:

- progressive development of production benches up to the current edge of disturbance / approved quarry limits and basal levels, with no lateral expansion into undisturbed land;
- continued use of existing infrastructure, roads and access, plant and buildings, etc, with no new built development;
- retention of the temporary soil storage mound west of the site until such time that the material is required for restoration;
- bench treatments as part of restoration, where appropriate;
- restoration would utilise the existing soil materials in storage (and quarry waste / dust depending on availability) to provide mainly natural regeneration and mosaic of grassland, scrub and woodland cover, with exposed rock outcrops and slopes;
- there would be no visually significant or mature landscape elements or features removed or created; and
- duration of the extended workings would be short to medium-term, although certain tasks and effects would be shorter, with final restoration permanent.

Thus, there would be limited alterations to the existing landscape elements/features during working and after restoration, which results in a low degree of change to the overall character of the baseline conditions.

At a local level, the proposed development would not alter the current classification of the application site as an "active quarry", followed by its restoration to "sheltered valley (with mixed rocky grassland, scrub and woodland mosaic)", albeit over an extended period of time.

There would thus be no changes to the principal findings of the LVIA undertaken as part of the 2010 ES, with the effects confined to a longer duration to complete the phased extraction programme, and a delay to the implementation of the final restoration strategy. This time extension and delay is considered to represent a slight adverse / neutral landscape effect.

3.2.3 Visual Impact

The visual baseline included in the 2010 ES described the key visual receptors in the surrounding area which the current Appraisal has confirmed to be largely unchanged.

Fieldwork was carried out in January 2021 to review the nature of views towards the quarry and also the degree of screening provided by vegetation and/or built-up areas and buildings. Generally, this indicated that the undulating hillside and scarp slope mosaic topography, in combination with the landcover of trees and woodland in parts of the study area, significantly reduces the visibility of the existing quarry.

Screening is typically greatest to the north, west and south of the site and around the lower-lying areas and built-up settlements and properties (such as west of Pontypridd, most of Glyncoch and Coed y Cwm and north-west towards Ynysybwl and along the River Taff), or heavily vegetated areas (such as around Coed Craig yr Hesg). Views typically become more open where land is elevated and/or begins to slope away, such as the unenclosed parts of Common Land to the east (such as Leyshon Common and Cefn Eglwysilan), or where hedgerows have been clipped short or

removed, from gateways and road junctions, or the edges of settlements (such as Cilfynydd).

As was the case with the 2010 ES visual assessment, potential visual receptors therefore include the following:

- inhabitants of settlements, such as parts of Pontypridd to the south, Glyncoch and Coed-y-Cwm to the north, Cilfynydd and Bodwenarth to the east and isolated residential properties and farmsteads, such as on B4273 to the east, or elevated hilltops around Leyshon Common and Cefn Egwysilan;
- users of public highways such as B4273 and A470 to the east, or the minor roads leading from the hilltops to the east;
- users of public rights of way in the local area, including Taff Trail and Celtic Trail, the Pontypridd Circular Walk and users of sections of National Cycle Routes; and
- visitors to the rugby football club and Pontypridd golf course.

The continued working at the site is not anticipated to be visible for most of the residents at Pontypridd from where views towards the site are typically obscured by intervening buildings, landform and/or wooded valley sides, in particular at Coed Craig-yr-Hesg south of the site. The exception may be glimpsed views of the plant site and primary crusher from certain elevated locations on the eastern side of the settlement, for example from the minor road leading up to Pontypridd golf course at 1.2km south-east of the site.

For residents at Glyncoch to the north, the continued working at the site is only likely to be noticeable from locations along the southern edge of the settlement, with other views are often orientated northwards away from the site. Views of the site are also typically enclosed by intervening buildings, landform and/or vegetation. The exception may be glimpsed views of the perimeter palisade security fencing, and/or mobile plant and vehicles from certain elevated locations.

Residents at Coed-y-Cwm have views typically orientated eastwards, due to the position of the settlement on the rising, western valley side. Notwithstanding the screening influence of other neighbouring buildings and/or vegetation within the settlement itself, the quarry is mostly hidden by the in-situ land to the north of the site and the vegetation around Glyncoch. The exception being glimpsed views of the top of the primary crusher, for example from Hafan Heulog at Coed-y-Cwm.

Cilfynydd is located mostly on the lower valleyside to the east of the Taff Vale, at or below 150m AOD, whilst Bodwenarth (and Coed Bodwenarth) extends over the slightly higher ground up to 190m AOD. Thus, elevated, westwards views are often gained towards the site from these settlements, although the orientation of the dwellings themselves will also affect the degree of visibility for residents, for example whether the views would be direct or indirect (or oblique). Other neighbouring buildings within the settlement and/or vegetation may further obscure views. Nevertheless, glimpsed views of upper quarry faces and the plant site and primary crusher can be obtained from certain elevated locations, for example from Oakland Terrace, Cilfynydd and Ffordd Tryweryn, Bodwenarth from where some of the upper faces of the quarry and the primary crusher are visible below the skyline and amongst the wooded valley sides. Most of the continued working in the quarry would be hidden and there would be no change to the proportion of the view occupied by the development.

Overall, the effect on views and visual amenity of the selected representative viewpoints and associated visual receptors are limited and neutral. This is primarily due to the configuration of the existing quarry and characteristics of the plant site (and primary crusher) as well as the undisturbed land and woodland, the offsite topography and vegetation cover, and with little to no change likely to be apparent. The underlying landscape character or view composition would be the same as the baseline at most locations. Continued vehicle movements would be an indirect adverse visual effect, albeit along the existing routes and road corridors.

3.2.4 Landscape and Visual Impact Conclusions

The appraisal of potential landscape and visual effects has concluded that the proposed development (extended timescale) is unlikely to be

detrimental to the overall character and / or appearance of the application site and its surrounding environment.

At a local level, the proposed development would not alter the current classification of the application site as an "active quarry", followed by its restoration to "sheltered valley (with rocky grassland, scrub and woodland)", albeit over an extended period of time.

The proposed development would not alter the key characteristics of the Natural Resources Wales' National Landscape Character Area "NLCA37 South Wales Valleys".

The proposals would not reduce the existing and effective mitigation measures at the site, with existing views anticipated to be largely unchanged. This would ensure that the extended period of quarrying activities would be well integrated into the landscape and the restoration proposals would still add to the overall landscape value (whilst in the interim the site continues to provide for local roadstone requirements).

The development proposals would not cause unacceptable harm to the important landscape character of the nearby Special Landscape Area (SLA). The unspoilt valley slopes and ridges which form a visual backdrop to the settlements of the area would be unaffected by the proposed development.

Although the extension of time would delay the final restoration of the site, the existing mineral working would continue to be well integrated into the surrounding landscape, due to the surrounding topography and high woodland cover.

3.3 Ecology

3.3.1 Ecology Study

The purpose of the Ecological Impact Assessment (EcIA) is to:

- describe the baseline data collection and assessment methods used;
- summarise the baseline ecological conditions including consideration of whether there have been any material changes since the EcIA undertaken in 2009 as part of the 2010 EIA associated with an update of the planning conditions, and the EcIA undertaken in 2014 as part of the western extension EIA;
- identify and describe all potentially significant ecological effects associated with the continued operation of the site;
- set out the design, mitigation and compensation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- identify how mitigation and compensation measures will be delivered;
- provide an assessment of the significance of any residual effects in relation to the effects on biodiversity;
- identify appropriate enhancement measures and how these will be delivered; and
- set out any requirements for monitoring.

Previous Environmental Statements provide an important source of background information for the site. EcIA's were undertaken in 2009 (ROMP Review) and 2014 (western extension and consolidation application) which included surveys and assessments of the existing quarry (2009) and existing quarry fringe (2014). The 2009 study did not identify any ecological constraints at the existing quarry which would affect the ongoing operation.

These previous assessments have been updated via a desk study / updated data search undertaken in December 2020 and site surveys (using Phase 1 habitat classification methodology) and assessment for the potential of protected and notable species were undertaken in January and February 2021.

The baseline situation, in terms of habitats, remains as reported in the 2010 ROMP Review ES. There have been minor losses of peripheral habitat in the intervening period to achieve the quarry void extent, together with a

degree of natural ecological succession resulting in increased scrub growth.

As a result, the conclusions reached in the 2010 ES are considered to remain valid and no additional impacts are predicted, or mitigation measures proposed.

In summary, the conclusions reached/measures previously agreed and considered valid are:

- No direct or indirect potential significant impacts have been identified upon any identified statutory or non-statutory designated sites for nature conservation. Craig-yr-Hesg / Lan Wood Site of Importance for Nature Conservation (SINC) occurs partially within the site boundary but is beyond the working area and would be complemented by the nature conservation-based site restoration.

- The presence of notable habitats i.e. those identified as priorities under Section 7 of the Environment Act and the Local Biodiversity Action Plan (LBAP), has been identified in peripheral areas (including the identified SINC) (i.e. broadleaved woodland), although no losses would occur and no significant residual impacts are predicted.

- The potential presence of roosting bats has been identified, although the occurrence of such is considered unlikely. However, the 2010 ES set out an approach to review quarry faces during quarry development works. As some face progression would take place, this is considered to remain appropriate and has been included in an Ecological Management Plan (EMP) which would be implemented at the site.

- Common reptile species (adder, common lizard, grass snake and slow worm) have been confirmed, again this relates to peripheral areas that may be subject to minor disturbance during final restoration. An approach to reptile mitigation was set out in the 2010 ES which is considered to remain appropriate and is included in the EMP.

- Peregrine falcon and a range of other breeding bird species occur, this predominantly relates to presence in peripheral habitats that will be retained or subject to minor disturbance during final restoration. Working protocols set out in the 2010 ES with regard to peregrine falcon are considered to remain valid and is included in the EMP.

The proposed restoration reflects that approved as part of the 2013 determination of the updated planning conditions. This will deliver significant habitat gains of biodiversity value for a range of species. The delivery of this restoration was not required to address any specified predicted impact to habitats or species and so a delay of six years to deliver the final restoration scheme is not considered significant or in need of any additional ecological / biodiversity compensation etc.

3.3.2 Ecology Mitigation Measures

The principal ecological mitigation measure is associated with the delivery of the restoration of the site which will create a sheltered valley (with grassland, scrub and woodland) to extend and compliment the semi-natural broadleaved woodland habitats found locally including Craig-yr-Hesg Local Nature Reserve (LNR) immediately to the south of the site, and Craig-yr-Hesg / Lan Wood SINC.

In summary, the restoration will comprise:

- Quarry Bench Restoration – predominantly as natural regeneration to encourage establishment of locally occurring species from the adjacent Craig-yr-Hesg woodland; and

- Quarry Floor Restoration – following removal of quarry infrastructure (unless otherwise agreed with the LPA), the quarry floor will be reprofiled where required and a mosaic of bare ground, seasonal inundation and species-rich grassland will be created.

Mitigation measures in relation to bats, reptiles and breeding birds are included within a detailed EMP.

The 2010 ROMP ES did not set out any specific enhancement measures beyond those delivered through site restoration. In recognition of advances in planning policy in the intervening time, it is now proposed to also make further enhancements during the operational period as follows:

- Erection of 20 bat and 20 bird boxes (including one barn owl box) in retained woodland habitats;
- Implementation of Japanese knotweed control programme; and
- Creation of five artificial hibernacula features suitable for reptiles during final restoration.

3.3.3 Ecology Conclusions

Overall, it is concluded that the continuation of quarrying for six years can be undertaken with full compliance with nature conservation policies at local and national level and would not result in any significant negative residual impact. Delivery of the restoration scheme will represent a positive impact.

3.4 Hydrology and Hydrogeology

3.4.1 Hydrology and Hydrogeology Study

A hydrogeological impact assessment was undertaken as part of the 2010 ROMP ES, which comprised an assessment of the hydrological and hydrogeological effects of quarrying within the existing permitted area of the Quarry. The assessment was updated as part of the 2015 ES to take into account the effects of quarrying within the proposed western extension area, in conjunction with the ongoing development within the existing quarry area.

The findings of the studies are straightforward, with the key issues being:

(i) The local groundwater level, as measured in groundwater monitoring boreholes lies below the minimum 100m AOD base level of the quarry. Quarrying to such depths has not and will not intercept groundwater.

(ii) Seepage from perched groundwater enters the void, together with direct rainfall and surface water runoff from the immediately adjoining area. This is directed by drainage channels within the quarry void into a sump at the base of the void, from where the water freely seeps into the underlying sandstone and migrates downwards to the underlying water table.

(iii) Surface water within the processing plant / office complex area is dealt with by an existing system of settlement lagoons and an off-site discharge regulated by NRW by a consent issued in 2013 (consent no AF4029101).

(iv) Minor spring flows feeding the Nant Tai'r-heol at Cefn and Darren-Ddu streams in the vicinity of the quarry are the only potential surface water receptors that have been identified as being at potential risk of impact from the quarry operations. However, the risk of impact is considered to be low, and any minor impact is likely to already have occurred historically as the quarry base is already well below the elevation of the springs feeding the streams.

(v) The key issue requiring mitigation measures is the potential for suspended sediment or fuel spillage to affect groundwater and surface water quality, for which standard mitigation measures are required and are in place.

3.4.2 Mitigation Measures

These findings and recommendations are reflected in the current schedule of conditions which require that:

- No excavation or extraction of minerals shall take place below 100m AOD other than those works necessary for the construction of the quarry sump (ref condition 6);

- Specific measures are to be in place for the storage of oils, fuels and chemicals to ensure no accidental leakage (ref condition 35);

- Any ditch, stream water course or culvert passing through the site are to be safeguarded to ensure that drainage onto or from adjoining land is not impaired or rendered less effective (ref condition 36);

- Settlement ponds at the site are to be kept in good operational order, and no discharge is permitted of waste, oil or other pollutant to any settlement pond, ditch, stream, watercourse or other culvert (condition 37); and

- No excavation shall take place below the depth of the water table unless a Hydrogeological Impact Appraisal for dewatering and a scheme of working has been submitted to and approved in writing by the Local Planning Authority (ref condition 38): this is a contingency condition which it is not considered will become relevant since no excavation below the water table is anticipated.

The above conditions were deemed by RCT to be sufficient to regulate the hydrological and hydrogeological issues which were identified in the 2010 ES and given that there are not proposed to be any changes to the working scheme or existing drainage arrangements, these measures are considered to be appropriate to adequately safeguard ground and surface water interests for the requested extended duration of the development.

3.4.3 Hydrology and Hydrogeology Conclusions

The ground and surface water controls at the Quarry are straightforward and are well-established. No changes are proposed to the approved quarry development scheme to which the conditions apply, and there would thus be no changes which would necessitate a review of the existing ground and surface water management controls.

The conditions imposed in 2013 as part of the 2010 review of planning conditions are thus considered to be adequate to continue to control impacts on ground and surface water for the requested extended time period.

3.5 Noise

3.5.1 Noise Study

A study of the noise effects associated with the continuation of quarrying and related operations draws upon the context provided by noise studies undertaken as part of the 2010 and 2015 ES's.

In undertaking the study, reference has been made to the current planning conditions relating to noise and guidance on the approach to noise studies and noise limits set out in Welsh Government Minerals Technical Advice Note 1: Aggregates (MTAN1). In summary, this confirms that noise limits should be set at a level which does not exceed the background noise level by more than 10dB.

Routine noise monitoring has been undertaken during the daytime in April 2013, November 2013, July 2014, December 2014, June 2015, June 2016 and July 2017. All monitoring occurred during normal daytime quarry operations at the four receptor locations referred to in the current planning conditions.

The overall measured noise levels or the estimated site noise levels were below the site noise limits for routine operations for all four locations on each of the monitoring occasions.

Additional noise measurements during normal daytime quarry operations were undertaken in December 2020. The surveys undertaken in December 2020 have also demonstrated compliance with the current noise limits.

Further noise measurements were undertaken in March 2021. These included two sample measurements at the noise monitoring locations at Pen y Bryn and Garth Avenue during daytime hours but at a time when site operations had ceased. This was to allow noise measurements to be obtained at these locations without any contribution from site activities.

Noise monitoring also took place at the rear of 26 Conway Close comprising the installation of a sound level meter for unattended measurements between Thursday 04 March 2021 and Tuesday 09 March 2021, with consecutive 15-minute data obtained over that period. Attended sample measurements were also taken.

At Conway Close, the current noise limit is 49 dB $L_{Aeq,1h}$ determined from the baseline background levels obtained in 2009, which had an overall average of 39.0 dB $L_{A90,T}$. In the 2015 ES for the proposed western quarry extension, the presented average background level for Conway Close was 36 dB $L_{A90,T}$ with a suggested site noise limit of 46 dB $L_{Aeq,1h}$. The results of the installed meter at 26 Conway Close in March 2021 indicate that the average background level was 37 dB $L_{A90,T}$. To reflect the more recent measured value and for consistency with the limit recommended with respect to the western extension development, it is proposed that a lower noise limit of 46 dB $L_{Aeq,1h}$ be adopted for this location.

The current noise limit for Pen y Bryn is 47 dB $L_{Aeq,1h}$. The noise measurements undertaken at this location, with and without the quarry operating, have resulted in similar background levels to those determined in 2009, on which the current noise limits are based. No changes are proposed to the noise limit at this location.

The current noise limit for Garth Avenue is 54 dB $L_{Aeq,1h}$. The recent measurements in March 2021 undertaken without quarry operations resulted in similar background levels to those determined in 2009, on which the current noise limits are based. No changes are proposed to the noise limit at this location.

The current noise limit for Rogart Terrace is 55 dB $L_{Aeq,1h}$. The baseline background noise levels at this location are over 45 dB $L_{A90,T}$, therefore the current limit remains valid.

Therefore, it is proposed that the current daytime noise level criteria are carried forward for Pen y Bryn, Garth Avenue and Rogart Terrace. A reduced noise limit of 46 dB $L_{Aeq,1h}$ is proposed for Conway Close.

The noise assessment has confirmed that the existing operations are proceeding in accordance with the current noise limits, and also with the reduced noise limit proposed for Conway Close.

The limits are considered to be appropriate for the requested 6-year time extension.

3.5.2 Noise Mitigation Measures

Craig yr Hesg Quarry is a fully established quarry that has reached its full lateral limits. There is already embedded mitigation at the site in the form of an acoustic barrier between the site access road and properties at Rogart Terrace. One of the most significant noise sources for some receptors is the rock drill. As extraction is complete on the top bench of the quarry, work is occurring on lower benches, which will result in the edge of the quarry providing screening attenuation.

In addition, the existing landforms around the site have the potential to provide screening attenuation.

The calculated noise levels have shown that with the existing embedded mitigation measures, current operations meet the suggested noise limits during the day. Noise from temporary operations also meets the suggested noise limit.

No additional mitigation measures are thus required.

3.5.3 Noise Conclusions

The primary focus of the application and associated environmental assessment is with a continuation of operations for a longer time period.

This noise study provides sufficient information to demonstrate that the noise levels arising from the quarry operations have been and will continued to be satisfactorily controlled. Monitoring has showed that the

noise limits have been achieved at the receptor locations. This effective control will apply for the proposed longer time period.

The study provides the calculated noise levels arising from the workings and demonstrates compliance with acceptable noise level criteria at all dwellings.

The sound power levels for the calculated site noise levels are based on noise measurements of plant used on site and experience of many sites and operating quarries.

The reasonable worst case calculated site noise levels at the dwellings comply with the suggested noise limits for the daytime period 0700 to 1900 hours. The calculated noise levels from temporary operations also comply with appropriate noise limits for such activities.

As measured and calculated site noise levels at the receptor locations are within the suggested noise limits with the existing embedded mitigation in place, no additional mitigation measures are considered necessary.

3.6 Blast Vibration

3.6.1 Blast Vibration Study

Blast vibration limits have been imposed as planning conditions which reflect up to date guidance and standards set out in Welsh Government guidance (ref MTAN1). Whilst blasting will on occasions be noticeable to members of the public (as is the case at all quarries), the limits which have been recommended by Welsh Government are set at levels which ensure that there can be no damage to residential type property, and where the effects are deemed by Welsh Government to be acceptable in amenity terms.

All blasts at Craig yr Hesg Quarry are designed by external specialist contractors under the guidance of Hanson to ensure that the vibration limits are not exceeded. All blasts are monitored to check the success of the blast design in securing compliance with the limits. The blast monitoring results are made available to RCT upon request and confirm that ground vibration from blasting events are being carried out in compliance with the defined ground vibration limits, with the majority of recordings well below the defined limits.

No changes are proposed to the current limits or to the current blasting practices. It follows that for the requested extended duration of quarrying at the site, blasting would continue to be regulated by the existing limits, and with all blasts continuing to be monitored. With a continuation of attention to blast design, there is no reason why blasting cannot continue to take place in accordance with the existing limits.

The blast vibration study thus recommends that the existing blast vibration limits are continued for the requested extended duration of the operations, and that all blasts continue to be monitored in accordance with the current arrangements, and with the conventional ‘good practice’ methodologies designed to minimise the effects of blasting (including effects of air overpressure).

The study sets out the standards and guidance relied upon, it describes the blasting process, the blast vibration monitoring which is undertaken, the ‘good practice’ mitigation measures which are implemented, and the recommendations for a continuation of this well-established regime.

3.6.2 Blast Vibration Mitigation Measures

No additional mitigation is considered to be required since blasting operations will be designed to continue to meet the requirements of the existing planning conditions, which themselves reflect the advice on blast vibration set out in MTAN1. The Operator’s Good Practice Guide outlined in the DETR report The Environmental Effects of Production Blasting from Surface Mineral Workings is already, and would continue to be, adopted to ensure that the potential for ground-borne and airborne vibration would be minimised at the quarry.

3.6.3 Blast Vibration Conclusions

Criteria for restricting vibration levels from blasting operations at the Quarry are in place via planning conditions where the defined limits are set at levels recommended by Welsh Government as being adequate to minimise impacts on nearby residents.

These limits will ensure that where the proximity of residential locations is the governing factor, all vibration will be restricted to a low order of magnitude and would be entirely safe with respect to the possibility of even the most cosmetic of plaster cracks.

With such low ground vibration levels accompanying air overpressure would also be of a very low and hence acceptable level, although possibly perceptible on occasions at the closest of properties.

It should also be noted that in determining the 2010 ROMP application to update the planning conditions, RCT concluded that the blast vibration control measures would be adequate to regulate the development based upon the quarry development scheme as defined, and the lateral and depth limits enshrined within that scheme. The current application is confined to a requested time extension within which to complete the implementation of that scheme. The volume of rock to be extracted annually would not change, and the frequency of quarry blast events to extract the rock would similarly not materially change - they would simply be continued over a longer period. Given that it is not proposed to amend the approved working scheme, it follows that the existing blast vibration controls must be suitable to regulate the remaining operation.

3.7 Air Quality

3.7.1 Air Quality Study

The Air Quality Assessment has taken the same approach as the air quality assessments carried out for the 2010 and 2015 ESs and is focused primarily on potential impacts and effects resulting from mineral dust emissions (fugitive deposited (nuisance) dust, and suspended particulate matter (PM_{10} / $PM_{2.5}$) arising from site activities).

Dust is generally categorised into two size classifications; 'suspended dust' or 'particulate' with diameters below 10µm (microns) (PM_{10}), and 2.5µm (microns) ($PM_{2.5}$), and 'deposited dust' generally with diameters between 10µm and 75µm. (A micron is a unit of measurement where 1 micron = one thousandth of a millimetre).

In addition, consideration has been included with respect to exhaust emissions (where this refers to nitrogen oxides (NOx) and particulate matter (PM_{10} / $PM_{2.5}$) arising from vehicles travelling to and from the Quarry.

There are no proposed changes to the current consented scheme or rate of working and as such there would not be any changes to the current processing activities, hours of operation, internal haulage or transport movements. The proposal is confined to a continuation of existing operations at the Quarry for a longer period.

The study draws upon European and UK legislation and air quality standards, notably the air quality standards and objectives designed to protect human health, dust standards and controls, and guidance and best practice regarding the control of emissions.

It considers the potential for dust, air quality and vehicle emission impacts within a defined study area and draws upon an extensive suite of air quality data assembled from air quality monitoring at and in the vicinity of the quarry. It also considers the principal sources of airborne dust associated with the on-going quarrying and excavation operations which include:

- on-going soil and overburden storage;
- mineral extraction including drilling and blasting;
- loading and tipping;
- mineral processing, including crushing and screening;
- stockpiling of product;
- internal haulage;
- site access / road transport;

- backfilling of excavation voids;
- wind blow across bare ground and stockpiles.

The study notes that the probability of dust being carried towards the key potentially sensitive receptors (the 'pathway effectiveness') has been assessed through reference to the site measured wind data, the distance and orientation of the receptors to the site and individual sources of dust, and the presence of screening. In practice, the probability of winds carrying dust may be reduced outside the summer months, when rainfall can be typically expected to suppress fugitive dust emissions over more than one third of the time. The potential pathway effectiveness has also taken into account the local terrain and topography and in-design mitigation measures.

It concludes that at residential and other highly sensitive receptors the likely disamenity dust effects are predicted to be *negligible* at the majority of receptors to *slight adverse* at most at the old peoples' flats and adjoining residential properties at Garth Avenue.

In relation to suspended particulate matter (PM_{10}), the study notes that Institute of Air Quality Management (IAQM) guidance advises that where existing background ambient PM_{10} concentrations are less than 17 µg/m^3 there is little risk that additional contributions from mineral operations would lead to an exceedance of the long-term 'Air Quality Objectives' (AQO) set by the EU and UK governments.

Defra predicted background annual mean PM_{10} concentrations for the general locality are in the range of 11.53-12.05 µg/m^3 for 2020, well below 17 µg/m^3. The RCT monitored data for Upper Garth Avenue confirms that the annual mean PM_{10} concentrations have been consistently well below the AQO for 2015-2019 being in the range 13.45-25.1 µg/m^3. These findings are therefore consistent with the IAQM advice.

The assessment has been further informed through consideration of the possible contribution of the quarry activities to the measured PM_{10} concentrations at the Upper Garth Avenue monitor. The data indicates a possible average contribution of 4.5 µg/m^3 of PM_{10} to concentrations at those receptors closest to the site. As noted above the total concentrations remain well below the AQO and the potential impacts would be described as *slight adverse*. Potential contributions would be reduced further away from the quarry.

On this basis, it is concluded that the proposed development would not result in significant adverse impacts on local air quality due to PM_{10} emissions, subject to the retention of the existing measures taken to manage fugitive dust, and hence also PM_{10}, emissions.

In terms of vehicle emissions, almost all HGVs travelling to / from the site do so via the B4273 to the south and Bridge Street / Ceridwen Terrace to / from the A470. All existing HGV movements are therefore through a short stretch of the Pontypridd Town Centre Air Quality Management Area (AQMA). However, these movements are already experienced on the local road network, and there would not be any increase arising from the proposals. Furthermore, it is noted that the characteristics deemed of importance to the Pontypridd Town Centre AQMA and that may have a cause in, or exacerbate, the need for the AQMA ~~is~~ are the traffic volume and buses, with a bus station being on the nearby Morgan Street and multi-storey car park between Morgan Street and the B4273.

On the basis that there would not be any increases in existing HGV movements due to the proposed development, it is not considered the proposals would have any influence of the proposed amendment to the Pontypridd Town Centre AQMA, and the overall effect of quarry vehicle emissions on local air quality is deemed to be not significant**.**

3.7.2 Air Quality Mitigation Measures

The study catalogues an extensive suite of measures designed to minimise dust emission which are required to be implemented under the existing planning conditions and Environmental Permit which would continue in place for the requested extended duration of operations. These include specific measures in the northern part of the site which houses the Primary Crusher feed hopper and associated haul road which include the provision of dust suppression water sprays at the feed hopper and along the haul road accessing the hopper, and provision of a flexible curtain to the hopper.

Other standard mitigation measures are employed across the site such as the use of a water bowser to enable dust suppression on the haul routes, maintenance of speed limits and smooth-running surfaces on haul roads, and minimisation of drop heights.

The site activities will continue to be operated in accordance with the existing dust controls as specified under the extent planning permissions, along with the additional controls imposed under the Environmental Permit covering the processing operations. This includes the requirement for no visible dust emissions from the processing activities beyond the site boundary.

The existing site wide fugitive dust mitigation measures are detailed within Condition 30 of the ROMP schedule of conditions. It is proposed that a Dust Management Plan (DMP) is agreed with RCT which would draw together these existing mitigation and management measures taking into account the existing planning permission and Permit controls for the continuation of the existing activities that are the subject of this planning application.

In addition, condition 31 of the ROMP schedule of conditions requires that prior to the commencement of any alternative means of access from the plant area to the primary crusher, a scheme shall be submitted to the LPA for additional dust minimisation measures along the site boundary in the vicinity of the primary crusher.

In practice, whilst there is now an alternative means of access from the plant area to the main quarry operational area, the access from the quarry to the primary crusher is largely unchanged. Nevertheless, Hanson are happy to adhere to the spirit of this condition and have proposed a scheme of additional planting along the site boundary north of the primary crusher designed to further control fugitive dust. The scheme is produced as **Appendix 11.6** to the main ES.

A temporary period of dust monitoring has also been established as part of the current assessments to inform the existing baseline situation. Measured dust deposition rates across the March to April 2021 period are all within the ranges previously measured from similar monitoring undertaken in 2014. This is consistent with expectations that there are no particular changes of note in the locality that would lead to an expectation that background dust deposition rates would have changed substantially since the previously monitoring. Subject to this preliminary conclusion being verified by results over a 3 month monitoring period, further dust deposition monitoring will not be considered to be necessary for the requested extended period of operations.

Separately Hanson proposes to cease on-Site PM_{10} monitoring and contribute towards the costs of the RCT monitoring, subject to incorporation of the arrangements in a formal legal agreement.

3.7.3 Air Quality Conclusions

Overall, with the on-going application of standard good practice measures, along with the additional site-specific enhanced measures, the residual risk of adverse effects due to nuisance dust is, at most, slight adverse at all receptors. Daily inspections and observations, along with rapid rectification of any identified equipment malfunctions, would be continued to minimise these risks. The resulting effects are considered to be not significant.

Similarly, on the basis of the PM_{10} monitoring data and subject to on-going maintenance of the existing mitigation measures taken to manage nuisance dust, it is concluded that the proposed development would not result in significant adverse impacts on local air quality due to PM_{10} emissions. The overall significance with regards to PM_{10} is not significant.

The proposed development would not result in the generation of additional vehicle movements on the local road network to those experienced currently. Potential adverse impacts and effects at receptors due to vehicle movements on the local highway would be negligible. The significance of residual effects associated with vehicle exhaust emissions would be not significant.

The overall significance of the proposed development with regards to air quality effects is assessed as ‘not significant’.

Accordingly, it is concluded that the proposed development is acceptable in terms of air quality considerations.

3.8 Traffic

3.8.1 Traffic Study

The traffic study has been undertaken in the context that the proposed development simply seeks to extend the end date for the quarrying operations by 6 years followed by a further year for transportation of remaining residual stocks of processed material.

Other than the extension of the deadline for the cessation of activities, the proposal will result in no material change when compared with the existing situation in terms of output or associated traffic movements, noting that the average recent and historic output has been approximately 400,000 tonnes per annum.

The implicit acceptability of the continuation of traffic movements associated with Craig yr Hesg Quarry has recently been confirmed via a planning application (ref 15/0666/10) for a western extension to the site, which was proposed to maintain supplies for some 25 years. The planning application was refused in July 2020, on the grounds that quarrying operations would take place within 200m of sensitive properties without sufficient justification, but the refusal did not relate in any way to highways impacts.

In this context, the study describes the geometry of the site access, which has been improved pursuant to a planning permission granted in 2014 to provide for two-way HGV traffic, and the pattern of HGV movements confirming that almost all HGVs travelling to/from the Quarry do so via the B4273 to the south of the site, where they continue to Pontypridd before heading east to join the A470 at its grade-separated roundabout interchange, at which point they distribute primarily towards the south.

The study draws upon traffic surveys undertaken in 2012 and 2013, and an updated survey in December 2020 which provide data on peak, weekday and 7 day flows along the B4273 to the south of the quarry.

In summary, the 2012 survey confirmed that during the weekday working hours of the Quarry (07:00 – 19:00) the 5 day average flow during the operating hours was 9,222 vehicles, of which 742 (8%) were HGVs.

The 2013 survey confirmed a 3 day average flow during the operating hours of 9,301 vehicles, of which 739 (7.9%) were HGVs. The HGV proportion during the 3 weekdays surveyed averaged 7.3%, which equates to 847 vehicles per day.

The total traffic volumes measured during the two surveys are thus broadly similar, where during some periods of the 2013 survey the traffic volumes were higher and vice versa.

A new traffic survey was undertaken, at the same location as the previous surveys, between Friday 27 November and Thursday 03 December 2020 using an Automatic Traffic Counter. This period fell between the Covid 19 lockdowns imposed in Wales, when travel was not restricted. During the weekday working hours of the Quarry the 5 day average flow during the operating hours was 7,777 vehicles, of which 288 (3.7%) were HGVs.

By comparing the 2020 survey data with that recorded during 2012 and 2013, it is apparent that the daily and peak hourly flows were lower during the most recent survey, as are the number of HGV movements. It is likely that these reductions are a result of seasonal variations, suppressed travel arising from the Covid 19 outbreak and potentially the closure of White Bridge, as vehicles divert to other routes when leaving the residential estate it connects to.

Based on the 847 recorded HGV movements per day during the 2013 traffic survey, the percentage of HGVs attributable to Craig yr Hesg Quarry is calculated to be approximately 16.5% based on 140 movements per day associated with an average payload of 20 tonnes, reducing to 13.7% based on the higher payload of 24 tonnes which results in an average of 116 movements per day at the Quarry (ref section 2.4 above).

Due to the lower traffic flows recorded during the 2020 ATC survey, it was found that the proportion of Craig yr Hesg Quarry HGVs within the total HGV flow, assuming all Quarry HGVs travelled to / from the south of the access, thereby crossing the ATC site, varied between approximately 4% on Saturday and 32.9% on Friday.

Based upon design capacity published in TA 79/99 "*Traffic Capacity of Urban Roads*", the current peak hour flows on the B4273 represent approximately 67% of its design capacity, leaving a reserve capacity of approximately 33%. Applying traffic growth factors to 2029 (to reflect the time extension application period), the B4273 would retain a reserve or spare capacity of at least 304 vehicles (20.2%) in the 2029 peak hour. Road capacity is thus not a material concern regarding the determination of the time extension request.

3.8.2 Traffic Mitigation Measures

A designed-in mitigation measure has already been implemented via the construction of the new two-way access to the quarry which delivered improved visibility and geometry at the connection to the B4273.

The existing road network currently accommodates the traffic associated with the activities at Craig yr Hesg Quarry, which are assumed to continue as existing for the life of operations associated with the proposed time extension.

As has been established, the existing road network retains sufficient capacity to accommodate the traffic and has a sufficient level of geometric design to facilitate safe access, as demonstrated by the lack of accidents involving HGVs within the study area in recent years.

In general terms, the highway network is therefore considered to be acceptable and no geometric improvements are required to accommodate the ongoing activities at Craig yr Hesg Quarry beyond routine maintenance of the new quarry access road and its visibility splays.

3.8.3 Traffic Conclusions

Following completion of the review of the highway and transport implications of the proposed development it is concluded that:

- The recently improved site access is acceptable to serve the proposed development;
- The quantum of proposed development traffic is already accommodated on the local road network, which has been demonstrated to retain substantial spare capacity; and
- There are no recent records of accidents involving HGV's in the vicinity of the quarry or on the identified access route to/from the A470.

Accordingly, it is concluded that the proposed development is acceptable in terms of highway and transport considerations.

This conclusion has been implicitly supported by RCT as it raised no objection on highway grounds when considering the previously proposed western extension to Craig yr Hesg Quarry, in circumstances where the proposal predicted continuation of the same activities at the site for an additional period of 25 years.

3.9 Cultural Heritage

3.9.1 Cultural Heritage Study

Cultural Heritage Assessments were undertaken as part of the 2010 EIA / ES submitted to accompany the application to update the planning conditions, and the 2015 ES which accompanied the western extension application.

In summary, the studies noted that no cultural heritage features are recorded within the site and the quarrying operations undertaken will have removed any unrecorded archaeological remains which may have existed. There would thus be no direct archaeological effects associated with a continuation of the quarry development for the requested extended time

period and no mitigation is required with regard to any potential archaeological remains.

The topography and screening provided by the development confirms that the Listed Buildings located to the north-east of the site are separated from the site by extensive modern development, and therefore the proposed development will not affect the settings of these assets.

Similarly, the effects of topography, screening provided by the existing quarry and woodland to the south of the site, together with the location of the Listed Buildings south of the site within an urban environment is such that the ongoing development will not have the potential to affect the setting of these designated heritage assets.

No mitigation measures are thus required with regard to impacts upon designated heritage assets, as the ongoing development will not affect the settings of Listed Buildings located within the environs of the site. This is evident from the absence of conditions in the updated schedule of conditions relating to cultural heritage interests.

3.9.2 Cultural Heritage Conclusions

There are no proposals to amend the quarry development scheme or the existing footprint of the already developed area. It follows that there would be no additional effect on any potential below ground archaeological features and no change to the absence of any effect on the setting of listed buildings in the general vicinity of the quarry.

These circumstances would not change by virtue of the requested extended time period to complete the development.

3.10 Socio-Economic, Well-Being and Health Issues

3.10.1 Study

The main themes of concern regarding the proposed development are anticipated to relate to noise, blast vibration and dust. The study seeks to address these concerns by drawing upon information detailed within the project description and relevant topic chapters.

On the basis that the application is for an extension of time at an existing development rather than for the proposal of a new development, it is possible to use monitoring information from existing activities to inform the conclusions in relation to health, wellbeing and socio-economic factors.

Those particles which are not respirable do not constitute a credible physical health risk but could cause nuisance and associated wellbeing impacts. As smaller, respirable particles will make up a small proportion of dust emitted in addition to any exhaust emissions, it is unlikely that the extension of time would cause respirable particles to exceed the relevant objective threshold set to be protective of human health.

As discussed in the air quality summary at section 3.7 above, it is also the case that extensive air quality monitoring undertaken by Hanson and RCT have shown that air quality is well within the short- and long-term Air Quality Objectives set to be protective of human health.

Regarding noise, quarrying operations will continue to take place during the day which limits the potential for sleep disturbance and associated health and wellbeing effects. Furthermore, worst-case noise levels predicted would comply with noise limits set to be protective of human health. To further mitigate potential adverse health and wellbeing impacts from changes in noise, the operator will continue to publicly (and privately where appropriate) communicate particularly noisy activities in advance of them occurring.

Blasting activities have the potential to generate ground vibration and airborne vibration. From the information available from existing activities, no blasting events have exceeded the ground vibration limit set to protect human health, and no material damage or associated adverse health and wellbeing effects have been recorded.

Updated baseline traffic flows show that the road network used by the development will continue to have spare capacity. In addition, no collisions associated with existing activities have been recorded and therefore, no highway safety impacts during the extension of time are anticipated.

The conditions imposed on determination of the ROMP application in April 2013 would not normally be reviewed until a further 15-year period had elapsed, i.e. in 2028, corresponding approximately to the period for which the current time extension is being sought.

The extension of time period for activities at the site would also extend the wider socio-economic benefits associated with the proposed development. The retention of employment would be particularly beneficial to health and wellbeing at the individual level on the basis that being in good quality, long-term employment and having a stable income are two of the most important wider determinants of health.

3.10.2 Mitigation Measures

Mitigation measures focus on environmental precursors to adverse health and wellbeing outcomes, thereby intervening prior to any manifest health outcome. On the basis that no significant adverse environmental precursors have been identified which might then generate adverse health and wellbeing effects, no further health-specific mitigation measures are proposed.

It is however recommended that communication with the local community regarding early warnings continues to address adverse health and wellbeing effects associated with risk perception of blasting activities. This should continue to include advance notification of blast dates/times and any new/unusual activities.

3.10.3 Health and Well-Being Conclusions

Overall, no significant adverse health and wellbeing effects are associated with the extension of time application.

Existing activities have shown that exposure to environmental determinants of health would remain within objective thresholds set to be protective of the environment and human health.

There would be beneficial health and wellbeing effects from the retention of long-term direct, indirect and induced jobs associated with the extension of time application. However, while important at the individual level, this would not be measurable at the population level, and is not anticipated to be significant.

4.0 OVERVIEW AND CONCLUSIONS

This document comprises a Non-Technical Summary of an Environmental Statement which provides a detailed and objective analysis of the potential environmental effects which would be associated with an application to extend the end date for the extraction of sandstone at Craig yr Hesg Quarry from 31st December 2022 to 31st December 2028 (and a consequential extension of the time period for restoration to 31st December 2030).

There were remaining reserves at the Quarry of some 3.3m tonnes as at 31st December 2020. Assuming a continuation of recent sales of 400,000 tonnes per annum, then, in the absence of a permission to extend the life of the quarry by the requested 6 years, a reserve of some 2.5m tonnes would remain unworked at the quarry as at December 2022.

The reserves at the quarry are able to produce a high specification aggregate, suitable for exacting road surfacing specifications, and are acknowledged to be a resource of UK importance. Planning Policy Wales (Edition 11) confirms that the UK and regional need for such minerals should be accorded "significant weight", with MTAN1 confirming that such reserves should be treated as a "special case" in terms of supply. MTAN1 also urges planning authorities to recognise the UK importance of the resource. The sterilization of existing permitted reserves of such a resource would be contrary to these principles and would not be in the interest of sustainable minerals planning.

The importance of this is re-enforced by the need for economic growth as the country emerges from the Covid pandemic where supply of aggregates is a key component of the construction industry which is a key element of such growth. Placing unnecessary restrictions on the supply of aggregate (particularly high specification aggregate) would be wholly illogical and inappropriate in these circumstances.

The RCT LDP makes provision for a western extension to Craig yr Hesg Quarry as the only allocation of land for future aggregates included in the LDP. Continuity of extraction at Craig yr Hesg Quarry thus represents the primary minerals strategy of RCT via the LDP, and the ability to be able to extract existing permitted reserves at the quarry (via the requested end date extension) would be entirely consistent with that strategy.

In the absence of a permission for a time extension, the RCT landbank of permitted reserves would reduce even further and very substantially below the MTAN1 requirement to maintain a landbank of at least 10 years throughout the period of the local development plan, and would be contrary to similar landbank policy commitments in the adopted RCT LDP.

This is a compelling reason in its own right to ensure that the remaining permitted reserves at Craig yr Hesg Quarry are not sterilised from December 2022 and thereby removed from the landbank, particularly in the context of the quality of the reserves involved.

The Quarry has been in existence since the late 1800's and has been operated in its current form for several decades. The quarry has reached its full lateral and depth limits, and a phased quarry development scheme and restoration strategy (via the ROMP Review) is in place. No changes are proposed to the approved quarry development and restoration scheme. Similarly, no changes are proposed to the current working practices or processing arrangements, or to the controls on the plant separately in place via an Environmental Protection Act Permit

The existing planning conditions imposed via a ROMP Review have been deemed adequate by RCT to regulate the ongoing operation, and it is only proposed to amend those existing planning conditions in so far as is necessary to allow a further 6 years of mineral extraction at the site The existing planning conditions which regulate hours of working, noise, blasting, dust and air quality, and surface water and groundwater protection would remain in place to regulate the operation for the additional timescale requested.

The ES concludes that the existing planning conditions remain appropriate to regulate the development for the requested extended time period.

The ES also highlights a suite of mitigation measures and other controls which are in place at the quarry, and which would continue to be

implemented as 'good practice' measures designed to minimize the effects of the ongoing operation.

All quarry developments will give rise to some degree of environmental effects, and this is inevitable given the nature of the operations which are involved. However, the requirement of national planning policy (PPW11) and the advice in MTAN1 is to ensure that effects are '*minimised'* and maintained '*within acceptable limits'*. It is important to note that in this case, these effects are known, rather than predicted, which reduces uncertainty regarding the nature of effects.

The conclusion reached by the ES is that the ongoing development could continue whilst minimising the environmental effects, and that the existing substantial package of mitigation measures would continue to ensure that the effects of operations are maintained "*within acceptable limits*".

In this context it is respectfully requested that, as advised by PPW11, RCT should '*provide positively for the working of mineral resources'* by granting permission for the requested time extension.

The Planning Policy section of the ES concludes that the development would be in accordance with the development plan in terms of the mineral supply strategy of the Plan, but also in terms of the individual environmental protection policies which have been assessed.

In all these circumstances it is considered that there should be a firm presumption in favour of permission being granted.

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