

REVIEW OF OLD MINING PERMISSIONS

PANTYFFYNNON QUARRY, BONVILSTON, VALE OF GLAMORGAN

**REVIEW OF OLD MINING PERMISSIONS –
CONTINUATION OF OPERATIONS, EXTENSION OF TIME
LIMIT UNTIL END DATE OF 21ST FEBRUARY 2042 FOR THE
COMPLETION OF QUARRYING OPERATIONS, TOGETHER
WITH DEEPENING OF EXTRACTION (NORTH SIDE), AND
ASSOCIATED WORKS (PLANNING PERMISSION REF.'S
97/01084/FUL & 2009/00814/ENV).**

ENVIRONMENTAL STATEMENT NON-TECHNICAL SUMMARY

**JANUARY 2025
REVISION**



Geraint John Planning

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DRAWINGS

Site Location Plan Ref. M20.114.D.001

North Quarry

- PHL-PFQN-1-2-24 Current topo plan
- PHL-PFQN-2-2-24 Ex to 85maod
- PHL-PFQN-3-2-24 Ex to 75maod
- PHL-PFQN-4-2-24 Ex to 65maod
- PHL-PFQN-5-2-24 Reconstructed access ramp with schematic section
- PHL-PFQN-6-2-24 Sections1 AND 2
- PH-PYF-1-10-24-JA A1 Landscape
- JA-PH-PYF-1-10-24 Restoration to Wall Plan
- FILL TO WALL-JA A3 L
- FILL TO WALL-XS JA A3 L

South Quarry

- PHL-PFQ-1-24 Excavation to 85maod
- PHL-PFQ-2-24 Excavation to 75maod
- PHL-PFQ-3-24 Excavation to 65maod
- PHL-PFQ-4-24 Excavation to 55maod
- PHL-PFQ-5-24 Cross sections 1&2
- PHL-PFQ-6-24 Cross sections 3&4

1.0 INTRODUCTION

Background to application

- 1.1 This document is a non-technical summary of the Environmental Statement that is being submitted with the ROMP application to continue operations and deepen extraction at Pantyyffynnon Quarry.
- 1.2 It provides the information required by Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 without using technical terms or jargon.

Screening

- 1.3 Given that the applicant has previously approached the Vale of Glamorgan Council (the 'Council') asking their opinion as to whether it is necessary to provide an Environmental Statement and given that one was prepared previously following Council responses, the applicant is again providing an Environmental Statement, albeit voluntarily as the proposals no longer involve recycling and a lesser amount of infill is proposed.

Environmental Statement

- 1.4 The full Environmental Statement consisting of a main document and technical Appendices has been submitted with the application. It provides a way of looking at the impacts that might occur and who/what will receive those impacts. It then establishes the scale of the impact and how sensitive the receiving environment is.
- 1.5 It looks at whether the impact will be short- or long-term and whether it is temporary or reversible. Having considered all these factors, the document then 'scores' the impact before looking at what options are available to remove or reduce it.
- 1.6 A second scoring process is then undertaken with the proposed options in place, and this tells the reader whether the final impact is significant or not significant.
- 1.7 Other matters are also looked at such as whether there are other developments that have planning permission or have started which could have a joint impact with the new proposals.

2.0 Schedule 4 Information

Location of the development

- 2.1 Pantyyffynnon Quarry is approximately 8.8 hectares in extent and is centred around Grid Reference ST 0459 7405. There is an existing access to each of the quarries from Pantyyffynnon Lane, a single track metalled road, which leads to the west to a junction with the A48 that links the west side of Cardiff to Cowbridge approximately 5km to the west. Immediately surrounding the site are agricultural fields to the north, south and west along with scattered farmsteads. There are small blocks of woodland in the near vicinity and mature trees in linear blocks adjacent to highways. Immediately to the east/southeast of the site is the Llantrithyd Deer Park which is a Registered Park and Garden.
- 2.2 The nearest residential property is Pantyyffynnonau approximately 135m to the east of the application site boundary. The nearest settlements are Bonvilston to the east and Llantrithyd to the south. A Public footpath runs alongside the western side of the north Quarry joining Pantyyffynnon Lane with the A48. There are no significant waterbodies or watercourses in close proximity to the site but there is a large solar farm to the west and significant plantation woodland to the northwest with small pockets of residential development on the edge.
- 2.3 The site is located at the head of the Nant Llantrithyd watercourse which flows into the River Thaw and, eventually, into the Bristol Channel. The Nant Llantrithyd runs past the eastern site boundary and flows south through two small ponds in the adjacent Llantrithyd Deer Park before it meets the Nant Tre-gof south of Llantrithyd village and eventually joins the River Thaw near Flemingston.

Physical Characteristics of the development

- 2.4 The applicant will undertake preliminary works related to the closure of the existing access into the North Quarry and a new access formed opposite the access to the south quarry for health and safety purposes. In addition to proposed quarrying in the north quarry, the remaining reserve in the South Quarry will also be removed through drill and blast to supply mineral to the local area and beyond. The extent of this quarrying is shown on the revised phased works and extraction drawings prepared by James Associates, which have taken into account the findings of the most recent updated ecological survey where there are species/habitats which are sufficiently valuable so as to be retained.
- 2.5 For example, it is proposed to leave the northern side of the quarry's eastern flanks undisturbed as they may present suitable habitat for Peregrine Falcons.
- 2.6 A new access ramp is to be created in the South Quarry to allow rock reserve to be accessed as its extraction is hindered by the current ramp.
- 2.7 There are then two main phases to the development of quarrying activity. The first phase will involve the deepening of the north quarry from 89m AOD to 85m AOD through drill and blast. Simultaneously the removal of the existing ramp in the south quarry void will also take place with the creation of a replacement ramp in the south quarry void using site won materials which are either already on site, or supplemented by imported product as required. This phase is outlined on Plan Ref PHL-PFQN-2-2-24 Ex to 85m AOD – Phase 1. Upon completion of the new ramp the remaining reserve in the South Quarry will be extracted.

Characteristics of the operation

- 2.8 The stone will be loosened and broken by drilling and using explosives. This will take place at a frequency of less than four weeks.

- 2.9 The first phase of extraction will bring the south quarry levels to 85m AOD at their highest point, whilst simultaneously creating a new access ramp along the southern and eastern edges.
- 2.10 Initially the processing of limestone will be undertaken in the North Quarry using mobile plant. Due to restricted space, as extraction in the North Quarry progresses, processing will need to transfer to the South Quarry. As a consequence, limestone will be hauled from north to south for processing and stockpiling then sale.
- 2.11 Phase 2 as shown on drawing PHL-PFQN-3-2-24 will take the North Side of the Quarry down to a depth of 75m AOD. This incorporates further 'benching' around the edges of the quarry, along with an extension of the new access ramp proposed in the northern quarry. In the South Quarry, further works to create the new access ramp and reach mineral reserves are depicted on phase 2 drawing ref.PHL-PFQ-2-24.
- 2.12 The full extraction drawings PHL-PFQN-4-2-24 and PHL-PFQ-4-24 show the completion of limestone extraction down to a level of 65m AOD and 55m AOD in the North and South Quarries respectively, through the formation of further mineral extraction. It is expected that Phases 1 and 2 will be completed within 3.5 years from the date of commencement with phase 3 anticipated to finish within 2 years following this.
- 2.13 The proposed new end date for all quarrying operations at the site, excepting restoration and aftercare is anticipated to be the 21st February 2042, in line with the 2009 ROMP decision. It is anticipated that there are enough mineral reserves to sustain extraction in the quarry until this period.
- 2.14 The 2009 planning permission allows for quarrying operations to take place between 7am and 7pm on Mondays to Fridays and 7am to 1pm on Saturdays. These are the hours that are being applied for in this application.

Restoration

- 2.15 The void created by the mineral extraction on the northern quarry will be made safe initially with the relocation of the access road back to its original position. Benches remaining will be left to vegetate. As a result of the limited safe operational area at the final extraction level, no significant restoration is possible whilst minerals are being extracted. Given this, and to avoid the risk of instability impacts, buttressing is proposed for the slope of the southern boundary rock face of the northern quarry.
- 2.16 To achieve the necessary and safe restoration of the quarry, a graded slope comprising suitable engineering soils is to be constructed along the entire length of the southern sidewall and extending along the western end of the sidewall towards the north. This is shown in drawing number JA-PH-PFY-1-10-24 and in the Restoration to Wall Plan and detailed further in the North Quarry Concept Restoration Proposal Note. Restoration is to be completed within 5 years, as per the total estimate for the restoration scheme.
- 2.17 The soil forming material is also intended to provide ecological benefits on the bench locations as shown in the plans provided. This will primarily consist of natural materials designed to create a stable, nutrient-rich area for long-term land reclamation.

Expected Residues and Emissions

- 2.18 It is expected that the quarrying operations will produce an acceptable level of emissions as established by the Air Quality Assessment previously prepared by Kairus Ltd. for the 2021 planning application. An emissions management plan has also been prepared in support of this ROMP application which details a range of mitigation measures to reduce emissions and any potential impacts on sensitive receptors.

- 2.19 Landscape and visual impact – no significant effects are anticipated from a landscape and visual perspective
- 2.20 Ecology impacts – negligible to moderate adverse impacts on designated sites, habitats and protected species. The existence of bats means that a lighting scheme will have to be agreed so that it does not interfere with feeding bats. Following the updated ecology survey, it is envisaged that there will be a net gain in ecological terms provided that the outlined guidance is adhered to.
- 2.21 Noise and vibration – the impacts from quarrying will be the same as at present. These impacts will be controlled so that they meet the standards which are contained in the current planning conditions. There are no changes proposed to the hours of working and blasting will be no more frequent than every four weeks.
- 2.22 Air Quality – the applicant has provided an emissions management plan which includes the control of dust to ensure these emissions are controlled to acceptable levels. Complying with the Plan will be enforced by the Planning Authority. The contribution of the proposed transport has been considered and is not expected to cause an increase in particles and gases that would impact on human health.

Hydrology and Hydrogeology

- 2.23 At present the quarry accepts rainwater and precipitation. The water settles in the base of the north quarry where it soaks away or, from the south quarry, is pumped out to the Nant Llantrithyd watercourse. The proposal is for all future collected water to be filtered as per current quarrying operations before being allowed to flow to the watercourse. Impacts are considered in terms of both quality and quantity.
- 2.24 The application proposals include the prevention of spills and filtration before discharge to the watercourse. The impact of pumping to the watercourse has also been considered in terms of whether it would affect flooding in the area. When rain falls it is collected in the base of the quarry and there is a delay between that collection and it being pumped away. This helps to reduce the potential for flooding.
- 2.25 Consideration has also been given to how local water supplies will be affected by the deepening of mineral extraction causing a 'drawdown' effect.
- 2.26 Given that there will be no change in quarrying activities in terms of the rate and quantity of extraction, it is assessed that there will be no significant water-related impacts.

Alternatives

- 2.27 As this is an existing operation with existing infrastructure, there are no reasonable alternatives which the applicant has considered in respect of the development.

Factors to be affected

- 2.28 The quarrying of stone and creation of new access ramps and site access points are informed by assessments carried out by the various consultants involved, and have indicated that with appropriate mitigation there will not be a significant impact on any aspect of the environment.

Methods used to assess impacts

- 2.29 Different calculations are undertaken for each topic area and different computer software provides the results, but each topic is examined in a similar way identifying the current situation (baseline), determining where the impact will be experienced (receptors), understanding the size of the impact

and how sensitive the receptor is that impact. The methods are described in detail in each Appendix to the Environmental Statement.

2.30 For example, the air quality assessment has looked at houses within 400 metres of the boundary of the site and compared this to information on the wind speed and strength from different directions that has been measured at the nearest official monitoring station. This allows a prediction of the distance that different particle sizes will spread from the point where they are released.

2.31 The assessments then explore the actions that can be taken (mitigation) to avoid or reduce the impact. These actions can be simple such as restricting the hours of opening or damping down surfaces on dry, windy days. The applicant has agreed to put in place all of the recommended measures. When the actions are taken into account the assessors can indicate, with some certainty, what the 'residual' or remaining impact is likely to be.

Mitigation and Monitoring

2.32 It is expected that any new ROMP permission will be approved subject to conditions that set limits on the environmental emissions in accordance with current best practice. The operator will be required through these conditions to undertake monitoring of those impacts and supply the records to the Planning Authority. The Planning Authority will also undertake regular site visits to ensure that the development is being carried out in accordance with the approved application details.

Residual adverse effects

2.33 None of the assessments has shown that there will be an unacceptable level of impact if the appropriate limits are set and the appropriate controlling actions are undertaken.

3.0 Conclusions

Introduction

- 3.1 The impacts that will be caused by the proposed development have been assessed using modern standard methods by subject matter experts. The assessments follow a logical sequence which show the effects on different environments and whether they interact with each other to cause a stronger effect.

Conclusions

- 3.2 The assessments have concluded that there will be no likely significant effects once the appropriate prevention measures have been put in place. There are no indications that these effects will combine, and no other projects that are likely to contribute, so that a greater effect is experienced.
- 3.3 The effects can be controlled by the mitigation and conditions on a ROMP Permission to an acceptable level.