ROMP for Hindlow Quarry

Non-Technical Summary

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TARMAC
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Heatons
Planning Environment Design

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Introduction

This Non-Technical Summary (NTS) is based on an Environmental Statement (ES) that has been prepared by Heatons and its consultants and accompanies a review of the old mineral permission (ROMP) and submission of modern planning conditions pertaining to planning permission (ref. 1.776.R) for the winning and working of minerals and disposal of waste material at Hindlow Quarry which was approved in 1998.

The ROMP forms a mandatory review of planning conditions relating to quarry activities and is aimed at ensuring quarries operate with up-to-date planning conditions to modern environmental standards.

The Initial Review Planning permission, approved in 1998, was granted following its single planning permission for winning and working of minerals and disposal of minerals waste in 1957 under permission CHA/1156/23. The 1998 permission contained several planning conditions which required further information to be submitted to and approved by the Mineral Planning Authority prior to mineral extraction recommencing.

In 2017, 5 conditions were submitted to the Mineral Planning Authority - Derbyshire County Council (DCC) for approval along with the condition being imposed under Non-Material Amendment application NMA/1014/32 of planning permission CHA/1156/23. The information submitted was approved by DCC on 20th July 2017.

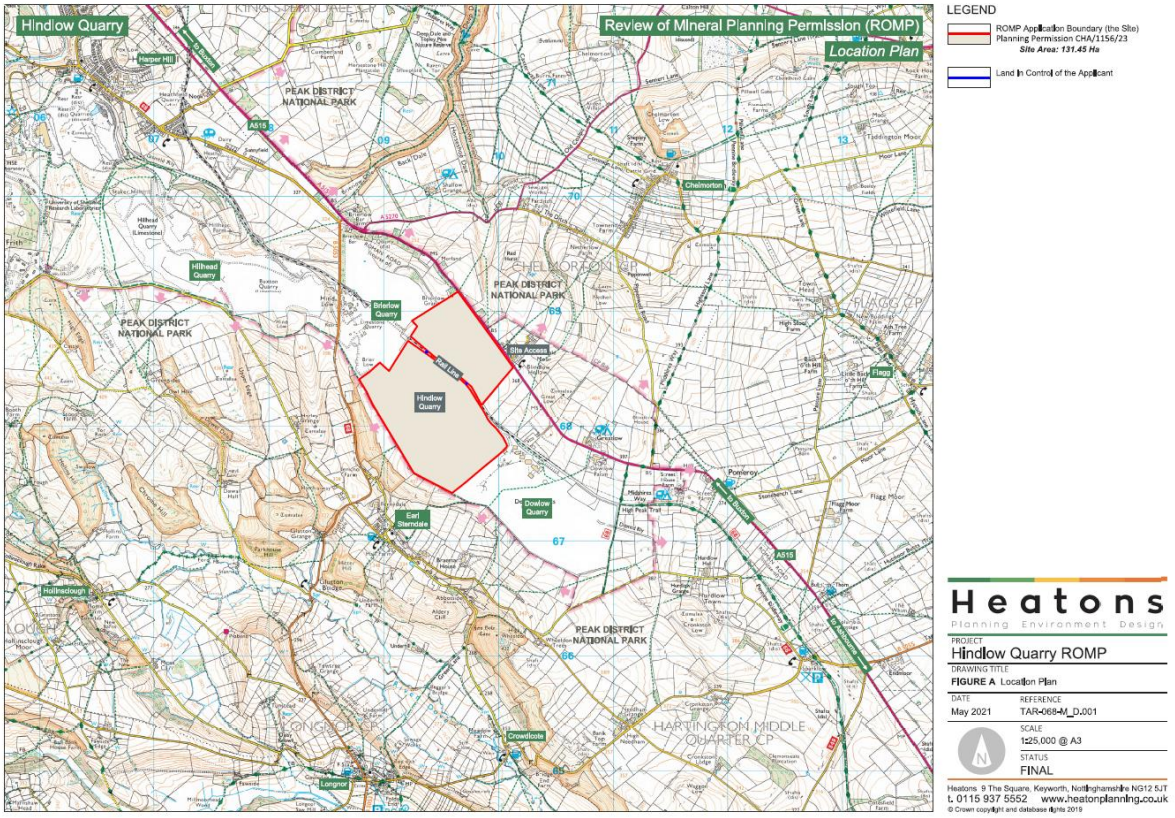
The requirement of a ROMP was due 15 years after the Initial Review in 1998, which would be by 28th April 2013. However, several deferrals to this have brought the date back to the end of June 2021 because it was considered that the conditions on the Initial ROMP permission were up to date.

In preparing the NTS, regard has been taken of the contents of Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Consequently, the NTS looks at the main elements of the proposals that have a *likely significant impact*, either positively and/or negatively, on the environment and local residents.

Site and its Surroundings

Hindlow Quarry is one, in a ribbon of four large limestone quarries consisting of Hillhead, Brierlow and Dowlow. The site is bound to the North East by the A515, with the settlement

of Sterndale Moor situated on the opposite site of the road from the quarry access. To the North West of the site is Brierlow Quarry and to the South East of the site is Dowlow Quarry. Finally, on the south west boundary of the site there is agricultural land and the settlement of Earl Sterndale ~475m south within the Peak District National Park.



There are a number of Public Rights of Way (PROW) which surround the site and there are three within the site itself. PROW HP14/7/1 and HP14/8/2 are both north of the rail line and HP14/8/1 follows the north western boundary of the site, south of the rail line. Footpath HP14/4/1, although not within the site boundary, runs parallel to the south western boundary of the site.

Within the site boundary there are a variety of land uses. The rail infrastructure which supports the quarry splits the northern and southern areas of the landholding and in turn separates the major land uses within the quarry. North west of the rail line is agricultural land, the access road and football pitch. South of the rail line is the existing quarrying operations, stocking areas and lime manufacturing facility together with undisturbed agricultural land.

The nearest sensitive receptors to the site are residents of Sterndale Moor, north of the site, residential properties within Dowlow Quarry to the east and Earl Sterndale to the south, as

well as users of the extensive Public Right of Way network. Receptors of historic value include Listed Buildings within Earl Sterndale and Abbotside Farm (within 1km of the site), also Harley Grange, Dowall Hall and Greatlow to the south east of the site. Further Listed Buildings can be found ~1-2km north east of the site within Chelmorton.

Overview of quarry

Extraction of limestone at Hindlow started towards the end of the 19th Century for the purpose of lime manufacturing from kilns on the site. The quarry began to develop through the first half of the twentieth century, along with other neighbouring quarries, which recognised the quality and benefits of utilising the limestone geology present in the ridge stretching north to south, to the south west of Buxton.

The Cromford and High Peak Railway was constructed during the early part of the 19th century as a means of transport in this south Buxton area. This railway was realigned and improved to assist in distribution of products from the quarries and lime manufacturing plants that were developing to the south of Buxton.

In the late 1980s it was decided to halt quarrying at Hindlow but continue with the established lime manufacturing on the site. The limestone raw materials were imported by rail from Tunstead. All lime products have previously and will continue to be transported off site by road going vehicles.

More recently extraction has restarted at Hindlow Quarry, both to supply the on site modern lime manufacturing facility and to meet anticipated demand for construction materials. So at the moment the import of limestone has ceased and the established rail network is now being used to distribute construction aggregates. Lime products will continue to be distributed by road.

It is planned to continue the extraction of the limestone in a phased manner to exhaust the currently permitted reserves of limestone. It is also intended to rework some of the existing mounds of previously quarried material that are present within the quarry footprint. These were created as a result of quarrying the limestone and are surplus materials including overburden and scalpings from the crushing and screening that occurred historically on site. Some of these materials will now meet specifications for construction aggregates.

As quarrying continues it is inevitable that there will be further surplus materials from the processing activities. These materials will have to be stored in a manner that will not prevent the future extraction of all the permitted reserves and also be available as a restoration medium that will be used to restore and improve the landscape of the quarry during the phased extraction and following cessation of extraction. As part of the continuing development of the quarry it will be necessary to permanently place some of these surplus materials on the fields between the railway and the A515 to create a landscaped landform. This is referred to as the North East landform and is in an area that the planning permission for the site designates for future placement of such surplus materials.

Full details of the quarrying activities, surplus materials placement and restoration are provided in this document.

The strategic importance of Hindlow Quarry relates to the range of lime products produced by the modern lime production facility which is now supplied directly from raw materials extracted at the quarry. The uses of these products are described below.

The Buxton range of quicklime products is designed for treatment of dewatered and digested biosolid sludges. Sewage and biosolids are frequently recycled to farmland following treatment by lime.

In many parts of the UK large areas of land are unsuitable for construction because the land is too wet or too weak to provide a stable base. Wet conditions and weak clay soils are stabilised by rotating specially formulated quicklime into the soil. These processes enable contractors to maximise the use of all site materials and obtain the properties that they need without removing unsuitable material from site and importing aggregates reducing overall cost and waste as well as transport movements and carbon emissions. The applicants soil stabilisation products have been proven on major projects such as the Channel Tunnel Rail link, Terminal 5 at Heathrow Airport and numerous retail and industrial parks throughout the UK.

Lime solutions play an important role in generating energy from household, municipal and clinical waste by ensuring that the gases that are released into the atmosphere are free from pollutants that can damage the environment. Injecting flue gases with lime is a highly effective way of neutralising harmful acidic substances. The process is similar to flue gas

desulphurisation in coal fired power stations.

Lime is also used in the production of essential materials ranging from construction projects to iron, steel, plastic, glass, pharmaceuticals, animal feed and toothpaste.

As well as the above industrial limestone products the quarry produces construction aggregates used as base material for roads, railways, construction of buildings and drainage works.

Description of the Proposed Quarry Development

This ROMP covers working until 2042 to allow working at the predicted rate of 2 million tonnes per annum. There are approximately 182 million tonnes of permitted reserves on site to be worked. A series of 5 Phases have been created to set out the extraction of the resources through to 2108.

Proposed Phased Working and Restoration

The general principle of working is Phased mineral extraction across the site and progressive restoration following on from the extraction of limestone.

Phase 1 - See Drawing No. TAR-068-M D.008 (Figure C)

Fields to the north west and north east of the site will be stripped throughout Phase 1 to expose the rock. The stripped soils and overburden will be placed as a bund south of the rail line. This stripping will take place annually to ensure land remains in agricultural use as long as possible.

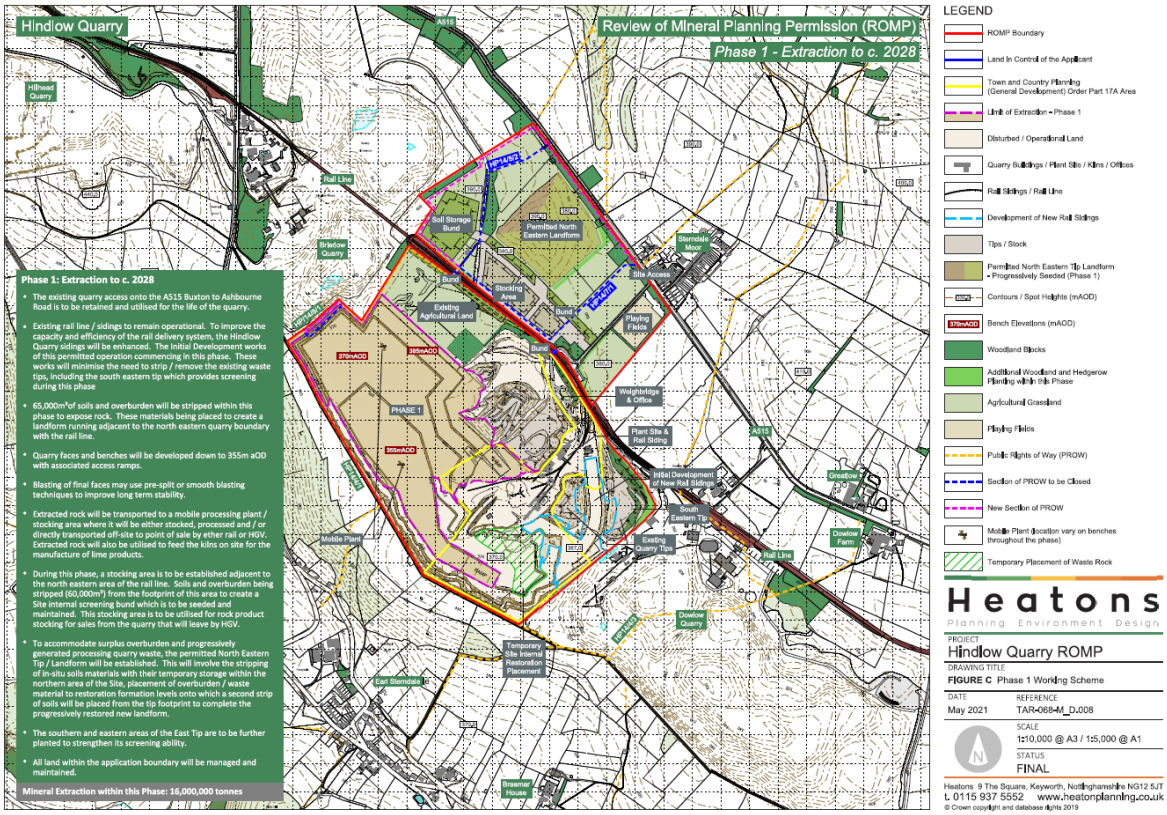
The Public Rights of Way within the site will be diverted in this Phase to form a new permanent PROW which follows the north eastern and north western boundary of the site to its meeting point with PROW HP14/4/1.

Initial mineral extraction in this Phase will involve the legacy north western faces and the existing bench levels will be advanced to the north east and north west.

Processing of material will take place on the working benches and material stored on the benches or hauled to the quarry floor / existing stockpiling areas. Processing new mineral for kilnstone will generate waste. Where this cannot be sold it shall be stored on site within the current excavation. Some materials will be placed in the new NE landform. Surplus

overburden and quarry waste will establish the permitted tip

Phase 1 will end with the creation of a new stockpiling area and associated infrastructure north of the rail line. In total mineral extraction will reach 16 million tonnes of saleable mineral up to 2028.

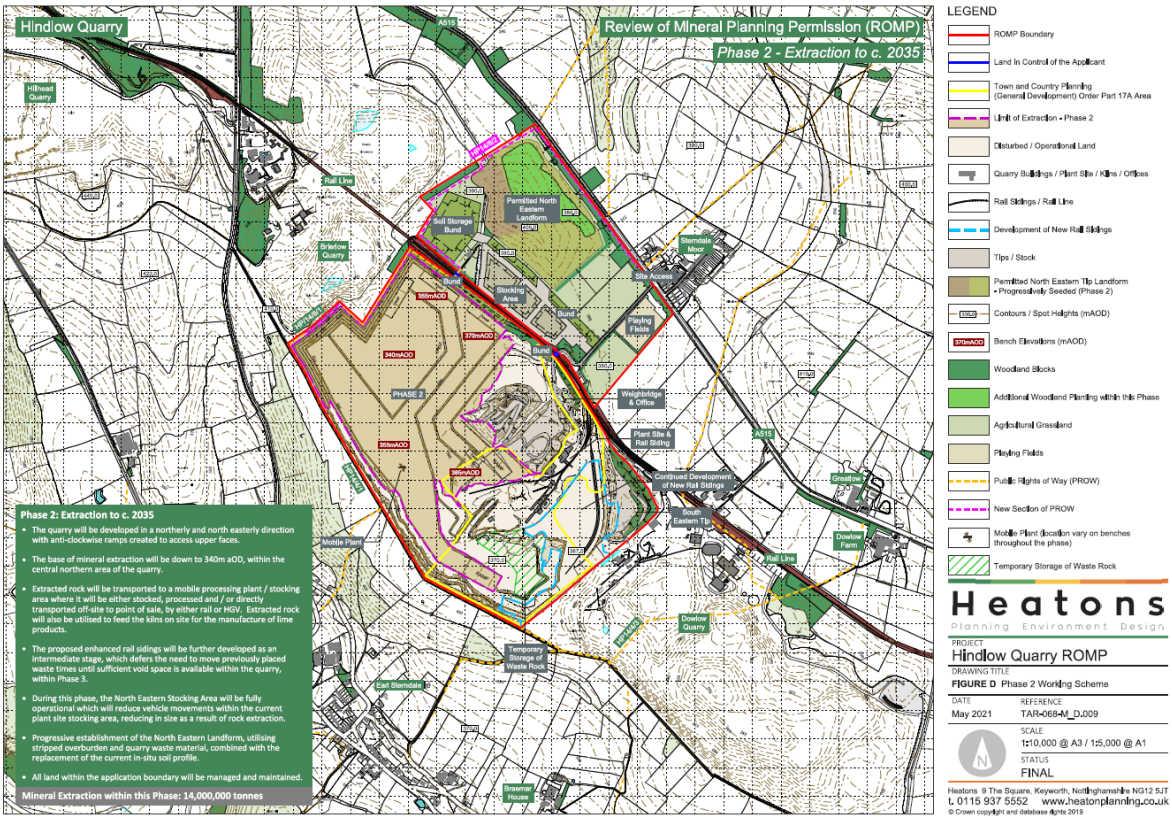


Phase 2 - See Drawing No. TAR-068-M D.009 (Figure D)

Stripping of overburden continues to move north east annually. By the end of Phase 2 all extraction areas will be stripped. Soils will be placed into bunds or as immediate restoration. The quarry will be continued to work in a north / north easterly direction with new ramps established between working levels.

Processing of material will take place on the working benches and material stored on the benches or hauled to the quarry floor / existing stockpiling areas. Processing new mineral for kilnstone will generate waste. Where this cannot be sold it shall be stored in the NE landform, which shall now be fully operational.

Mineral extraction will total 14 million saleable tonnes in this Phase up to 2035.



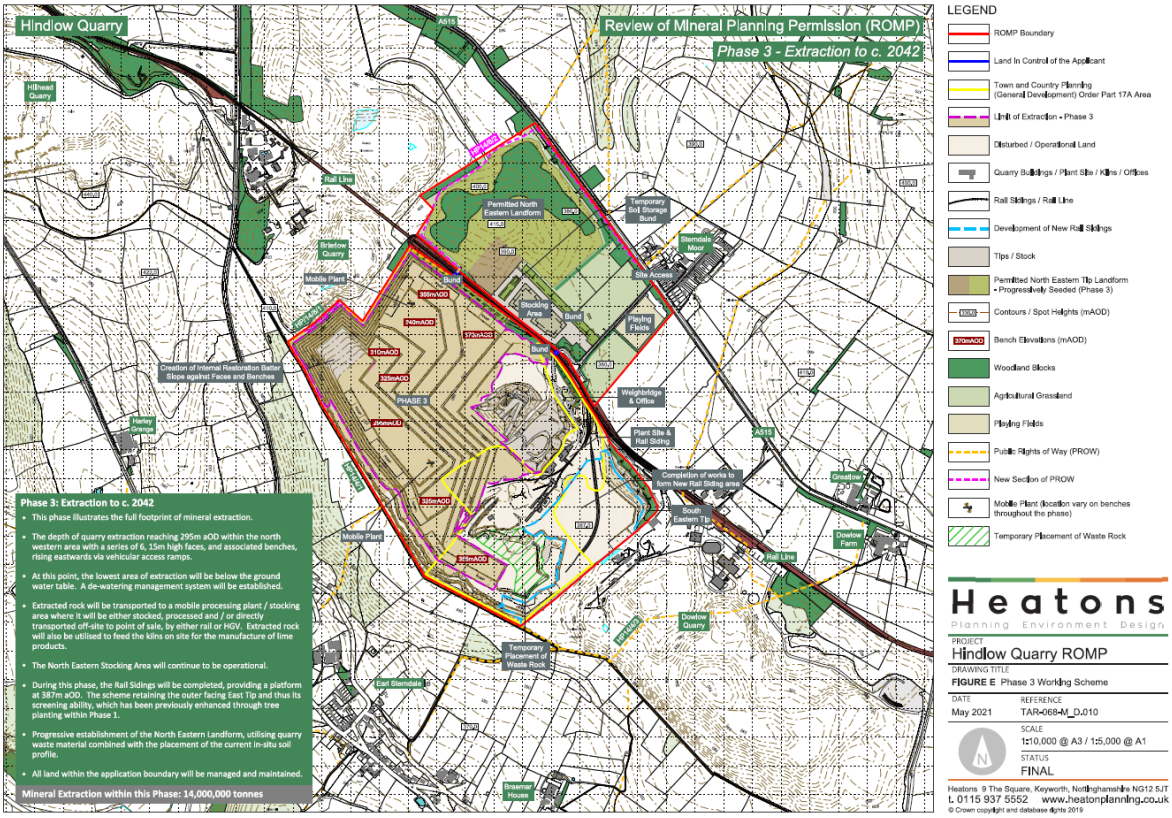
Phase 3 - See Drawing No. TAR-068-M_D.010 (Figure E)

Extraction will progress during this Phase, including quarry deepening.

Processing of material will take place on the working benches and material stored on the benches or hauled to the quarry floor / existing stockpiling areas. Processing new mineral for kilnstone will generate waste. Where this cannot be sold it shall be stored in the NE landform. As the landform increases in size the stocking area will decrease accordingly and stock can be kept within the extraction area.

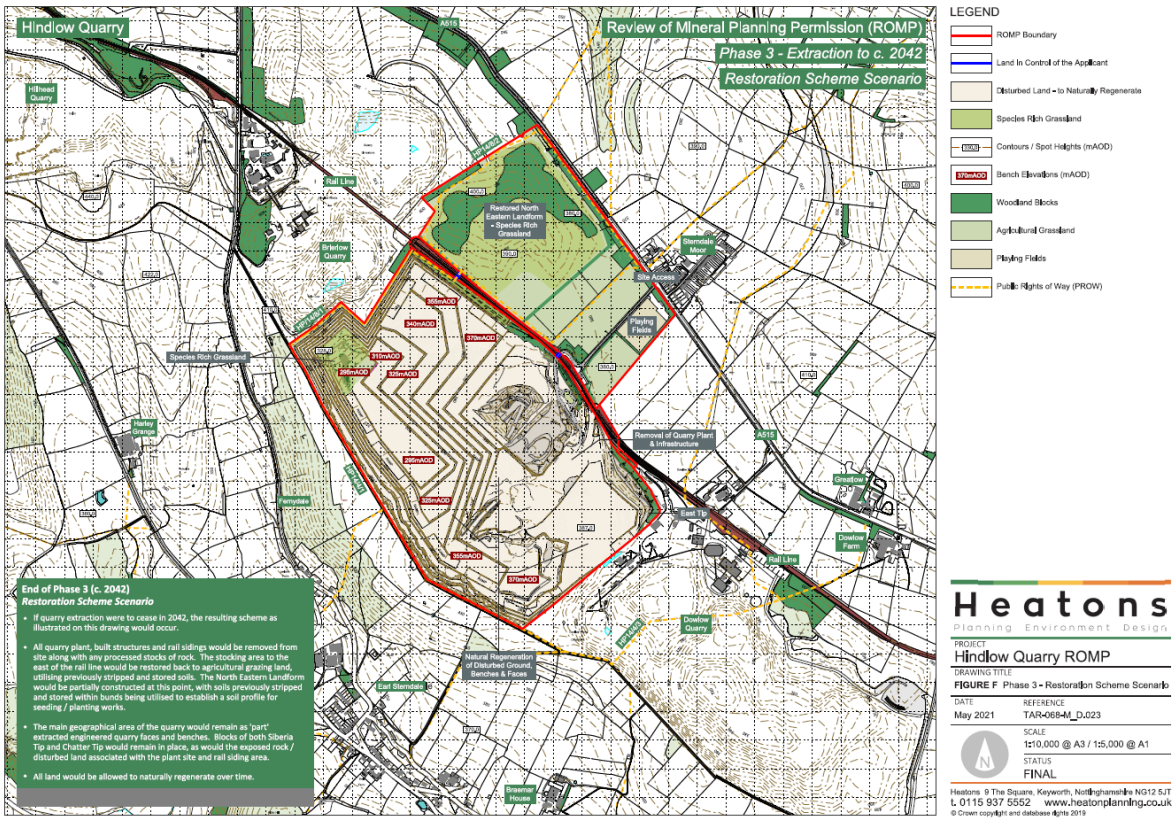
Additional working of the tips maximises available space for stocking and rail loadout. Surplus material from working the tips will be placed in the NE landform.

Mineral extraction in this Phase totals 14 million saleable tonnes up to 2042.



2042 Restoration - See Drawing No. TAR-068-M_D.023 (Figure F)

A 2042 concept restoration plan has been prepared (Figure F) indicating the situation at the quarry at this time. This plan indicates all plant, rail sidings and infrastructure removed and the remaining area to be left to naturally regenerate. This scenario is for indicative purposes as the permitted reserves at Hindlow extend well beyond 2042.



Phase 4 - See Drawing No. TAR-068-M D.012 (Figure G)

Phase 4 is the maximum quarry development possible whilst retaining the plant site and rail sidings. Dewatering will be required as deepening of quarry floor progresses and additional ramps will be established.

Processing of material will take place on the working benches and material stored on the benches or hauled to the quarry floor / existing stockpiling areas. Processing new mineral for kilnstone will generate waste. Where this cannot be sold it shall be stored in the north west quarry void and remaining surplus in the base of extraction.

Mineral extraction in this Phase will total 37 million saleable tonnes up to the year 2072.

Phase 5 - See Drawing No. TAR-068-M D.013 (Figure H)

The quarry will be worked to its final depth, which shall mean the whole of the quarry base is below the watertable. Lime kilns and rail sidings will be retained as long as possible but eventually require removal. Mineral shall now be transported off site to a satellite plant or sold as aggregate.

Processing will create some waste, where these cannot be sold, they will be stored within the

quarry void. Tipped material will assist in creating ramps and stocking areas within the excavation area.

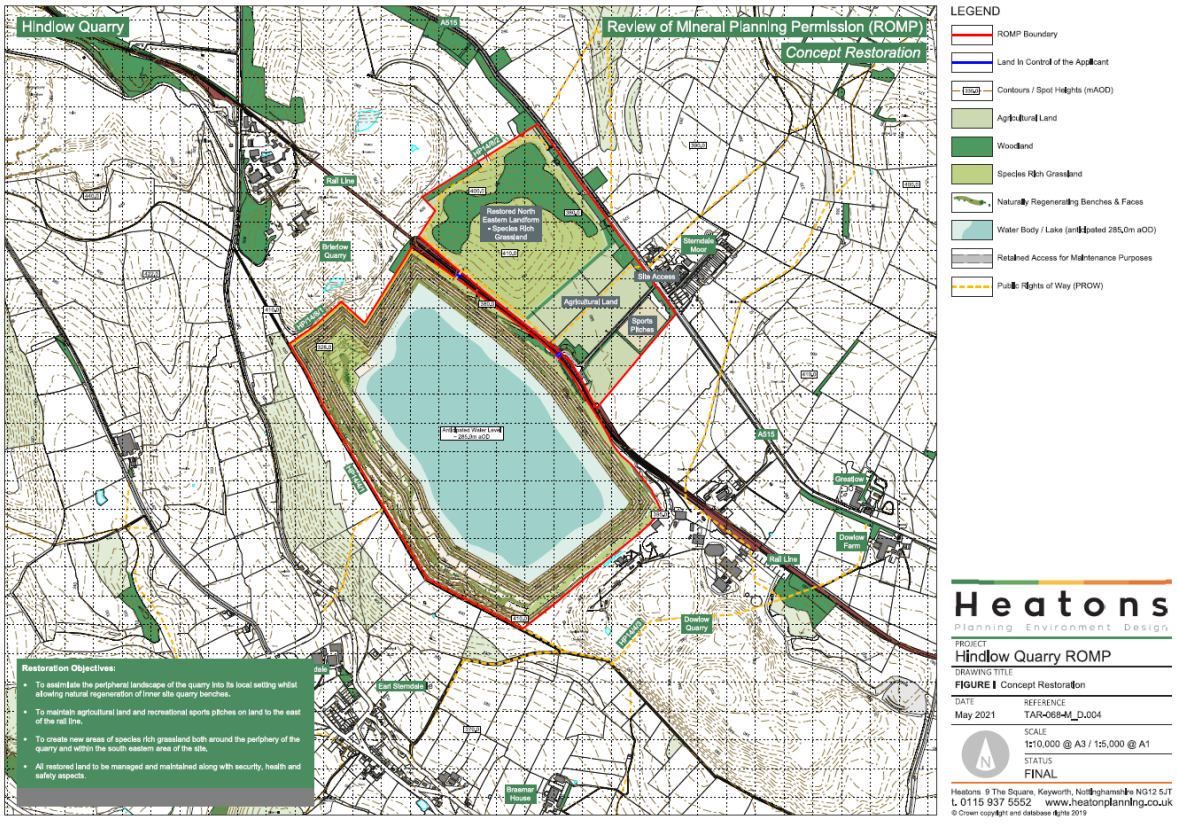
Mineral extraction within this final Phase will total 78 million saleable tonnes up to the year 2108.

Concept Restoration - See Drawing No. TAR-068-M_D.004 (Figure I)

The concept restoration does not form part of the ROMP as it follows working in 2108. However, details have been provided to illustrate the applicants intentions.

The aim is to assimilate the surrounding landscape into the site, allow the natural regeneration of the quarry benches and also allow the water within the quarry void to find its equilibrium. New areas of species rich grassland and tree planting is proposed.

Both the sports pitches and the haul road will be retained.



Aftercare and Management

The restored site would be closely monitored throughout the 5-year aftercare period so that the most suitable management regime could be defined on an area-by-area basis.

All planting/seeding failures would be replaced on an annual basis, during the first five years

of aftercare, to ensure 95% maintenance to the agreed stocking rate/densities, proportional mixture of species and/or land cover. All replacements would use plants of the same species or other such species as may be agreed with the planning authority. If abnormal plant or tree failure persists then investigations and proposals for the remedying of site conditions would be prepared and agreed with the planning authority.

Socio Economic Considerations

The National Planning Policy Framework (NPPF) acts as the overarching national guidance for the planning system and it emphasises the importance of minerals and ensuring that there is a sufficient supply to provide the infrastructure, buildings, energy and goods that the country needs. The NPPF identifies that minerals can only be worked where they are found and provides guidance on assessing the potential for environmental impact from development.

Jobs have been created since the resumption of quarrying activities at Hindlow, it will enable existing employment to be maintained across a range of industries, many of which depend directly upon quarrying, including Hindlow Quarry.

In addition to the direct and indirect benefits of the proposal, it will also induce benefits to the local and national economy through a multiplier effect.

The report from High Peak Borough Council on minerals and aggregate extraction in the High Peak reflects the importance of the quarrying industry and concludes that it “is a resource of national significance”. Hindlow Quarry, with its significant reserves of limestone will be an important strategic site in supplying product demand for major capital development and infrastructure projects across the midlands and northern regions of England for the remaining part of this century.

Assessment of Potentially Significant Environmental Effects

The following summarises the main topic areas that have been assessed in the preparation of the ES. The assessment of the topic areas has been undertaken by employing a wide range of independent specialist consultants. Full technical reports relating to the evaluation of the potential impacts have been prepared and form part of the ES supporting the ROMP Review.

Landscape and Visual Considerations

A Landscape and Visual Impact Assessment (LVIA) has been carried out for the proposed development which presents an assessment of the potential landscape and visual impacts of the revised working and restoration scheme at Hindlow Quarry.

The assessment was undertaken by Heatons who have significant experience in landscape and visual impact assessment and restoration of quarries and following the most up-to-date guidance.

The assessment considered the current operations on-site and existing permissions for the quarry, plus the proposed working and restoration scheme. The existing quarry operation consists of land which has been worked, active quarry workings and land where limestone is still to be extracted.

The impacts of the proposals would be mitigated by:

- Maintaining current limit of extraction to ensure western quarry landform boundary, and ridge between Hindlow and Dowlow are retained as they screen majority of views from north, south and west.
- Retention of the outer southern and eastern slopes and higher ground of South Eastern Tip which shall be 'greened up' and act as screening for new rail sidings.
- It is proposed to strengthen and add new native woodland planting along the full northern boundary of the rail line within the site boundary. This will provide screening and the establishment of a vegetative corridor for landscape structure and potential use as wildlife corridor.
- Removal of visually prominent Siberia and Central Tips from the skyline.
- North Eastern landform which shall be integrated into the landscape.
- Localised soil screening / storage bunds to avoid localised views into stocking area and mineral extraction area.
- Maintenance of tree belt along boundary of A515 screening views from Sterndale Moor.

The site is not located within a nationally designated landscape. Its western and north eastern boundaries do however abut the Peak District National Park and areas of the National Park have intervisibility with the site.

As part of the LVIA 26 local receptors / viewpoints were identified to understand the visual impacts in more detail; these viewpoints were picked to represent the overall views and the worst-case views of the site. Significant visual effects have been identified within the current and operational period of development. The peak number of Significant Adverse Visual Effect during the operational period is during Phase 1 where there are 13 Significant Adverse Visual Effects. Post restoration it is assessed that there will be no significant adverse effects to representative visual receptors and there will be 4No. beneficial

To conclude, the proposed development is considered to be acceptable and appropriate in Landscape and Visual terms, and in accordance with the identified landscape orientated designations and policies.

Nature Conservation and Ecology

Both Desk and Field study techniques have been utilised to assess the impacts of the proposed quarrying operations at Hindlow quarry.

There are four nationally designated sites within 2km of the application site. It was concluded that none of these statutory sites will be impacted upon by the operations at Hindlow Quarry. There are six non statutory locally designated sites within 2km of the application site. Only Brierlow Grange Meadow Local Wildlife Site has the potential to be impacted by the Hindlow operations.

The aforementioned designations will be protected through being retained throughout the life of the quarry. Stockpiling, tree planting and inclusion of a standoff to the sites will also ensure they are no more than locally negatively impacted.

Without mitigation measures in place, it has been assessed that the quarry would largely only negatively impact ecology at a site level. Following the mitigation measures outlined within the ES and addended Technical Reports, these impacts would be reduced to negligible.

The restoration of the site will bring about nature conservation benefits in the long-term. During future mineral extraction operations, no significant impacts are anticipated on any statutory or non-statutory sites designated for their nature conservation or ecological value. Opportunities for further species-specific surveys at appropriate times to protect identified species are proposed to ensure no significant adverse impact on protected species, such as

nesting bird surveys during the nesting season (March to September).

Noise

Vibrock completed a Noise Assessment in order to understand the impacts of noise upon the sensitive receptors in the area. A Noise Management and Monitoring Protocol was approved in July 2017 by the DCC under Condition No.27 of the 1998 Initial Review Planning Permission. This protocol will remain in place following determination of this ROMP application.

For the assessment, background sound levels have been undertaken and measurements made at the two locations which reflect those in the noise protocol. These locations being the settlements of East Sterndale (R1) and Sterndale Moor (R2). At each monitoring location it was found that the 'predicted worst case scenario' was below the extant planning condition limit. Regarding the allowance for short term operations, it was found that both monitoring locations 'predicted worst case scenario' was far below the extant permitted limit.

Annual monitoring at both R1 and R2 will ensure noise levels will remain below the permitted level. Best practicable means will be implemented to ensure noise levels are controlled across the site. Overall, it is considered that with appropriate mitigation measures, the relevant site noise limits based on PPG and the extant permission, are met. The assessment concludes that noise from the existing quarry boundaries will not cause an unacceptable impact.

Air Quality & Dust

Vibrock produced an air quality assessment reviewing the extant planning conditions from the Initial 1998 Review of Planning Permission and to evaluate the potential air quality emissions from on-going site operations up to 2042. The assessment considered both the potential sources of dust on site as well as the sensitive receptors that would be affected by the dust.

Potential sources consisted of:

- Drop height between the excavator bucket to the ADT and ADT to the mobile crush feeder
- Internal Haul Road
- Mobile Plant exhausts and cooling fans
- Lime Kiln area

- Lorries leaving site

By following best practice measures impact on air quality and dust generation will be suppressed. Full mitigation and best practice is outlined within Chapter 10 of the ES and in Technical Appendix D. In addition to the application of routine mitigation, the specific dust amelioration measures presented will be dependent on the daily management of the site. A Scheme of monitoring will be undertaken in order to record ambient weather conditions (which will be monitored continuously) and dust deposited at identified monitoring locations.

It is concluded that it is unlikely that there will be any significant decrease in local air quality as a result of continued operations at Hindlow. None of the potential dust receptors will face more than a low risk / slight adverse effect.

Regarding air quality levels of PM10 and PM2.5 are found to remain acceptable throughout the life of mineral operations at Hindlow Quarry, with no exceedance of Air Quality Objectives.

Blasting - Vibration and Air Overpressure

Vibration and air overpressure impacts have the potential to arise from operations being located too close to sensitive receptors or not being undertaken in accordance with recognised good practice and being a cause for nuisance. The consented development includes planning conditions which limit the levels of vibration and air overpressure from mineral operations at Hindlow Quarry.

A Blast Management and Monitoring Protocol was approved in July 2017 by the MPA under Condition 32 of the Initial 1998 Review of Planning Permission. This will remain in place following determination of the ROMP application.

There are a number of potentially sensitive residential properties which lie on the periphery of the existing quarry. Overall, it is considered that the proposed measures to control the impacts of ground borne vibration and air overpressure will provide adequate mitigation. The production blast carried out last year, which was monitored by site personnel has been found to be in accordance with the vibration limits specified in the Initial Review Planning Permission.

When working within Phases 1 and 2 a reduction in charge would be required at the closest

approach to rail infrastructure, in line with Table 4 found in Technical Appendix E ES Volume 2.

It is concluded that if the above mitigation measures are adopted, that the proposed next phase of development could be carried out in accordance with the current limits set out on the existing Initial Review Planning Permission and that there will be no unacceptable effects as a consequence of ground vibration attributable to quarry blasting.

Archaeology and Cultural Heritage

Regarding Heritage assets a Desk Based Assessment, Heritage Statement and Geophysical Survey have all been conducted in support of the application. The Desk Based Assessment identified 19 known archaeological remains or findspots within the ROMP area from the Derbyshire Historic Environment Record (HER) and/or Historic England's National Record of the Historic Environment (NRHE). In addition to the 19, a further 22 features were identified from a map regression and walkover survey undertaken. Further archaeological potential was identified as a result of the geophysical survey undertaken to inform the assessment. All findings are included within chapter 12 of the ES and Technical Appendix F of ES Volume 2.

The Heritage Statement identified a number of indirect impacts to the settings of Scheduled Ancient Monuments within the wider surrounding landscape. It was concluded that Phases 1 to 3 would have a Slight Adverse industrialising effect upon eight Scheduled Ancient Monuments within a 5km study area (bowl barrows at Fox Low, Pilsbury, Hollins Hill, Coatestown and Cronkston Low; two cairns at Gospel Hillocks; and Anglian hlaews at Haslin House). At the Coatestown bowl barrow, the effects would become Slight beneficial during the course of Phases 1 and 2 due to the removal of part of Siberia Tip, and this would also lessen the magnitude of the impact at Fox Low bowl barrow. There would also be Slight Adverse impacts to three Scheduled Monuments beyond the study are to the south east (Arbor Low Henge, Bowl barrow east of Arbor Low and Benty Grange hlaew). At three Scheduled Monuments (Chelmorton Low bowl barrows, Five Wells chambered tomb and Fox Hole cave) there would be Moderate Adverse effects, which would reduce to Slight Adverse as the scheme progresses due to the removal of part of Siberia Tip and the grassing-over of the proposed North-Eastern Landform. There would be Substantial Adverse effects at Nether Low bowl barrow, which would reduce to Moderate Adverse as the scheme progresses.

Full details of all assessed archaeological remains and findspots, including the impacts posed can be found within the Reports contained within Technical Appendix F of ES Volume 2.

Full details of proposed mitigation measures are provided within Tables 12.4, 12.5 and 12.6 of the ES. Below is a summary of the main mitigation points:

- Detailed walkover survey before each phase of soil stripping should be undertaken.
- Survey of earthworks associated with the regionally important C&HPR and the two limekilns.
- Ahead of Phase 3 a Historic Building Recording to be undertaken.
- A scalable Archaeological Watching Brief to be implements across the site.

Following the mitigation measures outlined and the implementation of the suggested condition of a Written Scheme of Investigation the proposed development is acceptable in terms of its impacts on Archaeological and Cultural Heritage.

Impact on Water Resources and Flood Risk

Both a Hydrogeological Impact Assessment (HIA) and Flood Risk Assessment (FRA) have been prepared by Hafren Water. Overall, the HIA and FRA has summarised that that consented mineral extraction and processing at Hindlow Quarry is not considered likely to cause any wider impact on the water resource around the site.

There are no watercourses in the immediate vicinity of the quarry, major groundwater discharge occurs along three nearby rivers. The groundwater flow is complex as it responds to seasonal change in rainfall. Quarry working will remain above the watertable during Phases 1 and 2 so no impacts on groundwater will occur during these Phases.

Within Phase 3 (2035 to 2042) there shall be an increased number of benches established. Initially quarry sinking will establish a deepened quarry floor at 325m AOD and 310m AOD levels. These areas may be periodically below the water table during periods of high rainfall in the winter due to elevated groundwater levels. Extraction shall be managed such that dewatering is not required. Additional quarry sinking will take place in the west of the site reaching level of 295m AOD with a series of 6 15m high faces and associated benches

rising eastwards via vehicular ramps. The 295 m level is expected to be below the water table for extended periods during the winter months and dewatering will be required. Permits to allow dewatering shall be obtained prior to commencing extraction of this level.

Regarding flood risk associated with the site it is determined that the mineral void will contain all surface water run off and the water will filter through the limestone bedrock. Post restoration north of the rail line will return to existing conditions. Overall, the working scheme satisfies the flood risk requirements.

Transportation and Traffic

Hindlow Quarry benefits from existing rail infrastructure allowing for an alternative transport of mineral to HGV's. Existing transport patterns relating to the site as well as predicted movements were considered. The predominant transport of mineral from site will be from the rail line, totalling ~1400 trips annually.

It is also predicted that there will be no significant increase to the current number of hourly two way HGV movements, this is due to the huge reliance on rail transport. Rail transport plays a key role in the reduction of emissions associated with the site and its operations. As well as complying with policy on both local and national scale, it will also ensure Hindlow remains considerate of its pollution impact across its long operational timespan. On a tonne for tonne basis, rail movement produces 70% less CO2 than road, fifteen times lower NOx emission and almost 90% lower PM10 emission as concluded within a Sustainable Transport study conducted by the Department for Transport in 2008.

No significant or unacceptable negative transport impacts are anticipated and therefore additional mitigation measures are not considered necessary.

Overall, the proposals would not have a material impact on the safety or operation of the local road network. In the context of the revised NPPF paragraph 109 it can clearly be concluded that the impact of the development in terms of traffic capacity will not be "severe". The Transport Assessment concludes that there would be no cumulative impacts vis-à-vis other mineral options in the vicinity of the site.

Rights of Way

All Public Rights of Way related to Hindlow Quarry, both within the application boundary and

its immediate surrounding areas are detailed on Figure J. Development of the northern half of the Hindlow Quarry requires the diversion of two Public Rights of Way (PROW) - HP14/7/1 and HP14/8/2. Also, south of the rail line, it is necessary to divert PROW HP14/8/1.

The northern footpaths are diverted along the north eastern boundary of the site with the A515, then along the north western boundary of site where it runs underneath the rail line and joins too PROW HP14/8/1. The new PROW created will become permanent due to the proposed phasing programme.

Potential indirect effects on the amenity of the right of way include visual, noise and dust impacts. The potential impact upon the identified footpaths from quarrying activities at Hindlow has been factored into the proposal and the scheme is considered to have some potential for adverse impacts upon PROW which shall be mitigated. A standoff and soil screening bund are included between the diverted PROW in the south of the quarry and the extraction area to ensure protection of the PROW users.

Taking account of the proposed diversion, restoration scheme and potential mitigation measures, the consented development can be worked without posing unacceptable harm to the PROW.

Soils and Agricultural Land Classification

As a large portion of undisturbed land within the application site is still within agricultural use prior to extraction a Soils and Agricultural Report was conducted in order to assess what impact development will have on the land resources.

It was assessed that the quality of land within the application is a mix of Grade 4 and Non-Agricultural. Soil resources have potential to be impacted by the working phase of operations. As operations progress land in agricultural use will decrease until all land is removed. The land is considered medium magnitude; therefore its loss is seen as a negligible impact.

The Soil Management Plan will facilitate the protection of all soil resources on site and mitigate the potential impacts of the Proposed Quarry and subsequent development to negligible.

Climate Change

The effects of climate change and the vulnerability of the development proposal to these changes has been considered as part of the preparation of the ES, particularly in terms of hydrology/flood risk, air quality and dust, traffic and transportation and ecology (i.e. the impacts of climate change on habitats/ species).

In terms of the effects on climate change, it is evident that the proposed development represents an appropriate use of the site whilst avoiding increased vulnerability to the range of impacts arising from climate change from the development of a new "greenfield " site. Regarding meeting the challenge of climate change, the proposed development and operations will not have unacceptable direct or indirect impact on population and human health; biodiversity; land, soil, water, air and climate; material assets, the landscape; or the interaction between these factors in accordance with EIA regulations.

Tarmac are committed to operating its business in a sustainable manner, seeking to protect the environment, prevent pollution, and mitigate our environmental impacts on surrounding communities. They are fully committed to supporting the UK ambition of net-zero carbon emissions by 2050.

Conclusions

This Non-Technical Summary sets out the findings of the full ES, and it considers the potential for impacts associated with a wide range of identified topic areas. Consideration of the issues within a planning context, the severity of the degree of any likely unacceptable impact and the mitigation measures provided to address such impacts where they arise.

No unacceptable impacts have been identified in relation to residential amenity, air quality, archaeology, designated nature conservation sites, the water environment, landscape character, or the highway network.

The mitigation of potential impacts through the imposition of planning conditions is in accordance with development plan policy and national planning advice contained in guidance. The level of potential impact likely to arise from the proposed development is low and capable of being controlled to recognised, acceptable levels.

In overall conclusion, it is considered that potential residual negative environmental impacts

will be capable of being made acceptable by the imposition of planning conditions and obligations. The potential environmental and local amenity impacts are therefore considered acceptable and the continuation of mineral operations at Hindlow Quarry is not considered to conflict with Development Plan policy.