

## LEA CASTLE FARM – REGULATION 25 REQUEST SUBMISSION

Dear Mr Aldridge

### **Re: Land at Lea Castle Farm**

**Application Ref:** 19/000053/CM

**Grid Ref:** (E) 383959, (N) 278992

**Applicant:** NRS Aggregates Ltd

**Proposal:** Proposed sand and gravel quarry with progressive restoration using site derived and imported inert material to agricultural parkland, public access and nature enhancement

**Location:** Land at Lea Castle Farm, Wolverley Road, Broadwaters, Kidderminster, Worcestershire

This document is a response to Worcestershire County Council's (MPA) request for clarification and additional information requested on the 5<sup>th</sup> June 2020 to help determine the above application as a result of consultation. The request being made under Regulation 25 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 and including consultation responses to the submitted application.

The format used to address these matters being a summary statement below each of the individual items raised in your request, together with a reference to Appendices within the report providing a more detailed response.

### **Water Environment**

***In view of the comments received from North Worcestershire Water Management, dated 12 March 2020, further information is required in relation to an assessment of any changes in 'exceedance' overland flow routes leaving the site following the development (this represents a worst case scenario in which the soils become water logged and / or the newly installed land drainage does not function); details regarding the phasing of when the land drains and soakaway ponds would be installed; and details of who would maintain the proposed drainage features.***

***North Worcestershire Water Management in their comments question whether the use of above ground Sustainable Drainage Systems (SuDS) features rather than buried land drains could be explored. The Mineral Planning Authority question if this has this been considered and details as to why this has this been ruled out / discounted?***

Clarification and a minor revision to final restoration levels have been provided to demonstrate that the progressively restored landform has been designed to capture runoff and direct accumulated water via Sustainable Drainage Systems (SuDS) to soakaway areas. The soakaway areas will be in continuity with in-situ ground / material. The soakaways location providing significant volumes of storage in comparison to the expected volume of runoff generated during storm events and the infiltration rate to the underlying aquifer. As such, overland flow from the soakaway areas / general restoration landform is not expected, with incident rainfall being managed within the site boundary. The establishment of SuDS features and soakaway ponds will be installed progressively, concurrently with restoration to ensure they are operational as soon as they are required.

The responsibility for maintenance of the soakaway areas and SuDS will initially be the Site Operators, for a period of 5 years post Restoration, during the Aftercare and Management

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Period, which would be monitored by Worcestershire County Council and the landowner. Past this period, responsibility will revert to the landowner.

A detailed response to North Worcestershire Water Management's comments has been prepared by BCL Hydro Consultants and is attached at **Appendix A**.

### **Biodiversity: Designated Sites**

*In view of the comments received from Natural England, dated 1 May 2020, the County Ecologist, dated 24 March 2020 and Wyre Forest District Council's Countryside and Parks Manager, dated 27 February 2020, it is considered that the proposed development has the potential to have significant environmental effects upon Hurcott and Podmoor Pool Site of Special Scientific Interest (SSSI), Hurcott Pasture SSSI, Stourvale Marsh SSSI and Puxton Marshes SSSI.*

*In view of this, the Mineral Planning Authority requests further information on how the potential for continuity between the aquifer and the designated sites have been considered; clarification in relation to the proposed land drainage scheme to ensure long-term efficacy; and clarification in relation to monitoring and mitigation scheme.*

*Natural England comment that the proposed development is situated in a primary aquifer considered to be in continuity with the surface water system including the River Stour and the Wannerton Brook. Therefore, it is likely to also be in continuity with a number of protected sites locally which are associated with these waterbodies as outlined above. Consequently, Natural England are concerned that at the impact screening stage, the Hydrological and Hydrogeological Impact Assessment identifies a potential for impact on groundwater but fails to recognise any potential for impact on protected sites. The Mineral Planning Authority requests further information on how the assessment has considered the potential for continuity between the aquifer and these designated sites.*

Further Information has been provided in the BCL Hydro Consultants report attached at **Appendix A** on how the potential for continuity below the aquifer and the ecological designated site has been considered. The hydrogeological data presented draws on a wide range of data sources and has been supplemented and confirmed by the regional groundwater flow dataset held by the Environment Agency. Groundwater beneath the site is located down hydraulic gradient of the protected Hurcott and Podmore Pool SSSI and Hurcott Pasture SSSI and hence will not be contributing to flows through the aforementioned protected sites.

The remaining protected sites are separated from the proposed development by the Staffordshire and Worcestershire Canal and River Stour. Based upon the hydrological setting, the vertical standoff to the watertable at the site and the proposed returning of incident rainfall to the aquifer within the confines of the site, there is considered negligible potential for the development to result in negative impact at Stourvale Marsh SSSI and Puxton Marsh SSSI.

*To mitigate for impacts on groundwater recharge, a land drainage scheme with perimeter soakaways is proposed to be used to maintain recharge at current volumes and minimise any disturbance to groundwater level profiles across the site. The efficacy of such schemes may deteriorate over time without ongoing maintenance and monitoring. In view of this, the Mineral Planning Authority requests further information on what arrangements would be put in place to ensure maintenance of the drainage scheme.*

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Please see response to Water Environment above and in the attached BCL Hydro Consultants report (**Appendix A**).

*There appears to be a reliance on managing the risks associated with infilling of the mineral workings through a monitoring and mitigation scheme that would be attached to any future Environmental Permitting application to be made to the Environment Agency. The Mineral Planning Authority requests further information on the proposals for monitoring, which should address both groundwater quality and groundwater level impacts (the latter to ensure the drainage scheme is operating effectively). Monitoring proposals should also identify what realistic and available mitigation options could be deployed if monitoring identifies issues of groundwater contamination or undesirable levels of disturbance to recharge patterns.*

Based upon the additional information and discussions to address the Water Environment aspects above the potential for negative water resource or quality impacts at the aforementioned protected sites is considered minimal. As is the norm it is recommended that a condition be included for the submission and approval of a monitoring program prior to the placement of any infill material at the site.

Please see **Appendix A** for BCL Hydro Consultants detailed response.

### **Biodiversity: Ancient Woodland, and Ancient and Veteran Trees**

*In respect of ancient woodland, ancient or veteran trees, the Mineral Planning Authority notes the comments from the County Ecologist, dated 24 March 2020 and Worcestershire Wildlife Trust, dated 25 March 2020 consider that Tree T22 has been given limited consideration within the application submission. In accordance with Paragraph 175 c) of the NPPF, the Mineral Planning Authority seeks further information regarding the ‘wholly exceptional reasons’ for the loss of a veteran tree. Furthermore, the Mineral Planning Authority request that a suitable compensation strategy is submitted.*

*The Mineral Planning Authority notes that there appears to be a mismatch in Tree ID between the various submitted documents, specifically between the Ecological Impact Assessment and Arboriculture appendices:*

- *Target Note 2 as a dying sweet chestnut with negligible bat roost potential. This tree is identified as T22 (veteran sweet chestnut) in the Arboriculture Appendix.*
- *Target Note 3 is identified as a veteran oak in poor condition and which appears to not have been assessed any further for potential to support bat roosts. This appears to be Tree T5 in the Arboriculture Appendix but was not identified in that document as a veteran tree.*
- *Target Note 5 is Tree T3, identified as a sweet chestnut with moderate bat roosting potential and which was subsequently found to support a bat roost. This appears to be Tree T8 in the Arboriculture Appendix, which identifies it as a common oak.*
- *Target Note 6 is Tree T2, an oak with high bat roost potential and subsequently a ‘possible’ bat emergence was noted during surveys. This is identified as Tree T9 in the Arboriculture Appendix.*

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- *Target Note 12 is Tree T4, an oak tree with high bat roost potential and which supports roosting kestrel. This was identified as veteran oak T25 in the Arboriculture Appendix.*

*In view of the above points, the Mineral Planning Authority seeks further clarification regarding the veteran trees on and adjacent to the site.*

*The Mineral Planning Authority also wish to reiterate that development resulting in loss or deterioration of veteran trees (T5, T22 and T25 as per Arboriculture Appendix, based on combined assessment between the applicant's Ecologists and Arboriculturists) should not be permitted unless there are 'wholly exceptional reasons' and an suitable compensation strategy.*

*The County Ecologist comments that veteran trees support a remarkable diversity of wildlife; the Environmental Statement appears to limit scope of invertebrate consideration to butterflies, noting that the site "does not contain any rare habitats", however, veteran trees are an increasingly rare and critically important habitat resource for notable and protected saproxylic invertebrates. The Mineral Planning Authority requests that further consideration is given to the impact of veteran tree loss on protected invertebrate species.*

*The Worcestershire Habitat Inventory shows that the woodland bordering the northern and western edges of the site have been included in the county Ancient Woodland Catalogue (WNCT, JJ Day, 1983) as "Wolverley Lodge" (reference 87023). In view of this, the Mineral Planning Authority seeks further information regarding the proposed mitigation strategies in relation to this ancient woodland, and their suitability for protection of ancient woodland habitats.*

*The Mineral Planning Authority wishes to draw the applicant's attention to the comments from the Forestry Commission, dated 17 February 2020 and Woodland Trust, dated 19 March 2020.*

Tree 22 has been resurveyed and the findings confirm that the veteran tree is of poor structural and physiological condition. Defects present include apical dieback, presence of Stagshorn and damaged bark at its base. Despite the findings of the survey, if there is a desire to keep this tree, it can and will be, within a buffer zone and integrated into the restoration scheme.

The proposed advance planting, progressive restoration and final restoration scheme will involve the enhancement and compensation planting of ~9,750 native trees and shrubs and ~170 avenue and parkland trees.

The administrative mismatch of tree references has been resolved;

- Tree T5 will not be impacted by the proposed development
- Tree T22 is to be retained with an appropriate buffer to works
- Tree T25 will not be impacted by the proposed development

Please refer to **Appendix B** - Response to Arboriculture and Protected Species Comments.

### **Biodiversity: Protected Species**

*It is noted that the site is used for commuting and foraging bats. Wyre Forest District Council's Countryside and Parks Manager in his comments dated 27 February 2020, is concerned that these bats are commuting and foraging across the site from an unknown location, therefore, there is a risk that if the proposal severs these foraging or commuting routes, it could harm these protected*

*species. In view of this, the Mineral Planning Authority requests that further information regarding the submission of a dark corridor map that demonstrates that bat commuting routes can be maintained throughout the duration of the operations.*

*In addition, the County Ecologist in his comments dated 5 June 2020, notes that Target Note 3 in the Preliminary Ecological Appraisal is identified as a veteran oak. This appears to be Tree T25 in the Arboriculture Appendix, however, there does not appear to be any assessment of bat roost potential. Tree T25 is located very close to site boundaries and may, as a result, be affected by environmental effects of the scheme during operation / restoration, which may in turn lead to deterioration and potential loss. The Mineral Planning Authority, therefore, requires further information / clarification of the potential effects on and protection measures for veteran oak tree Target Note 3 / Tree T25.*

*In addition, the County Ecologist in his comments dated 24 March 2020, and the Countryside and Parks Manager note that the submitted Bat Survey only addresses the potential of roosts within the boundary of the application site. The operational phase of this application is highly disruptive and some of the bat species identified are rare and highly susceptible to the effects of disturbance and light. Therefore, it is considered that there is a risk active bat roosts may exist within the boundary features that surround the application that would be negatively impacted by the proposal. In view of this, the Mineral Planning Authority seeks further information / clarification as to why it is considered a 10- metre buffer zone is acceptable to not cause disturbance to potentially active bat roosts; or further surveys of the boundary features for bats should be undertaken.*

*The Ecological Impact Assessment identifies the presence of Skylark, which are listed as a species of principle conservation concern under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Given the duration of the operations, by encouraging greater public use of the site post- restoration, and the fragile conservation status of this species, the Mineral Planning Authority requests further clarification / consideration is given to mitigation for the loss of habitat for this species.*

Please refer to **Appendix B** - Response to Arboriculture and Protected Species Comments. A summary of the findings in terms of bats and skylark is set out below:

#### Bat

An updated Bat activity and roost surveys were undertaken to update the 2018 surveys (see Appendix B). A total of four bat activity surveys were undertaken on the site, in June July August and September 2020. In addition, a total of four static detectors locations were completed.

During the roost surveys conducted on the trees within the site which were considered to provide suitable features for roosting bats, there was no evidence of any emerging or re-entering bats recorded during the surveys. In addition, upon inspecting the trees, there was no evidence of bat droppings or bat urine stains on any of the trees.

A total of nine species were recorded within the site during surveys, these were common pipistrelle, soprano pipistrelle, noctule, brown long-eared, Daubenton's, serotine, Leisler's and myotis bat species with the characteristics of Brandt's and natterer's. The value of the site for foraging and commuting bats is considered to be at the district, local or parish scale according to the guidance produced by Wray, 2010.

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There are small areas of suitable habitat for foraging and roosting bats to be removed during the proposed works. However, the majority of suitable habitat features are to be retained. Following the implementation of the proposed restoration, it is considered that the overall habitat diversity for foraging bats will have a positive impact over the long term.

### Skylark

As part of the proposed restoration works, the majority of the site will be restored to agricultural land largely similar to what is currently present within the site. In addition, there will be a large area of lowland acid grassland created as part of the restoration works. It is considered that the creation of the acid grassland will create greater nesting opportunities for skylark as this is a constant managed habitat that will be available every year. Whereas with the agricultural land that is currently in place, the chosen crop can vary from year to year, or some years can be left in situ. This means that the quality of nesting habitat available for skylarks can vary depending on the planted crop. Therefore, it is considered that the overall restoration strategy will have a positive impact on the suitable habitats available for skylarks within the local area.

Further benefits of the proposals include the phasing of the works. The acidic grassland creation is to be created within Phase 1, so this will ensure that this grassland creation is in place for a large extent of the works. In addition, the phasing plan ensures that by the time the works extend into the eastern boundary of the site, large areas of restoration will be created in the west. This will ensure large areas of skylark nesting and foraging habitat are available during the extent of the works.

The creation of additional public rights of way are to largely be created surrounding the site boundary. Skylarks are mainly found in the centre of fields and therefore additional disturbance should have minimal impact on nesting skylarks. Additional recommendations include the creation of skylark plots as part of the proposed restoration works.

***The Environmental Statement discounts impacts on otter as there are no suitable habitats identified on site. However, the Countryside and Parks Manager, the County Ecologist, and the Environment Agency in their comments dated 31 March 2020, note that the site abuts woodland associated with a (designated) watercourse, which are habitats likely to offer suitable opportunities for resting or natal otters. In addition, there are records of otter in proximity to this area. Whilst not within the red line boundary of the scheme, the effects of disturbance arising from mineral working upon the woodland habitat may risk adversely impacting otter, should they occur. For example, the Environmental Statement indicates that adverse dust impacts from sand and gravel extraction can reasonably be predicted within 250 metres of the source. In view of this, the Mineral Planning Authority requests further information regarding the potential offsite impacts upon wildlife including otters. Given the 11-year lifespan of the proposed operations, if disturbance is predicted this may have a significant impact upon a number of species sensitive to effects of disturbance, such as bats, otters and farmland birds. The Mineral Planning Authority, therefore, requests further consideration of specifications for proportional compensation and sustainable long-term enhancement measures for these species.***

An additional otter survey has been carried out and the full report is attached to **Appendix B** - Response to Arboriculture and Protected Species Comments. The report concludes that no otters were recorded within the site, or within the adjacent mixed plantation woodland during the surveys. Typically, otter holts and resting sites are usually within 50m of a watercourse and therefore due to the absence during the survey and the distance from the

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waterbodies. There is a public right of way located between the canal and the River Stour, this is a well used public footpath which is considered may cause disturbance prevent otters from creating holts in this location. The proposed works will also provide a minimum stand-off of 10m from all areas of boundary woodland.

It is considered unlikely that the mixed plantation woodlands and the full extent of the site boundary are being used by otters for breeding and resting purposes.

Although no otters were recorded during the time of survey, otters occupy a large home range and therefore the new otter holts could be created between the time of survey and the extraction of Phase 1. It is therefore recommended that an update walkover survey to check for otter holts or signs of otters is conducted prior to the commencement of works.

***The Mineral Planning Authority draws the applicant's attention to the comments from the Countryside and Parks Manager, who recommends that bat and bird boxes should be in the form of woodcreat or other more durable materials, due to the length of time these mitigation features would be required to be in place.***

It is recommended that bat and bird boxes are to be erected within the boundary woodlands surrounding the western site boundary. As updated within the bat report, it is recommended that a total of 5 bat boxes are erected within these woodlands. Woodcrete boxes such as the Schwegler bat boxes such as the 1FD, 1FF and 1FS should be installed within the site. It is also recommended that an additional 15 bird boxes should be installed within the western boundary woodlands. Woodcrete bird boxes such as the Schwegler 1B and 2M should be installed.

### **Biodiversity: Restoration Scheme**

***With regard to the submitted restoration scheme, in view of the comments from the County Ecologist, dated 24 March 2020, Wyre Forest District Council's Countryside and Parks Manager, dated 27 February 2020, and Environment Agency, dated 31 March 2020. The Mineral Planning Authority consider that whilst the creation of acid grassland would be entirely appropriate given the site's ecological and historical contexts, the proposed 'ribbons' of grassland habitats, proposed around the field margins, are not be appropriate. As these ribbons of acid grassland do not link adjacent unimproved grasslands, would suffer from greater 'edge effects' by their linear nature, would be under agricultural pressure from adjacent farmed habitat and would offer comparatively lower ecological value in comparison to a single, more practically manageable unit of acid grassland. In view of this, the Mineral Planning Authority requests that greater consideration is given to reconfiguration of acid grassland habitat as a single cohesive block. The Mineral Planning Authority notes that the County Ecologist recommends this be located on the site's western aspect to further buffer woodland edge from agricultural land use. For the mitigation scheme to be effective, acidic grassland requires a suitable soil substrate. This is likely to be different in nature to the topsoil intended for strip and bund storage for use in concurrent restoration work. The Mineral Planning Authority seeks further information and clarity that the volumes and quality of soils suitable for establishment of acid grassland have been identified and would be protected throughout working for restoration of acid grassland habitats.***

A revised Concept Restoration Scheme has been produced - please see Drawing No. KD.LCF.010A (**Appendix C**), which has taken on board the comments together with the practicalities of land management. It is proposed to concentrate the acid grassland within

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the Western Area principally north of PROW 62 4(B). This land being restored early in the proposals, at the end of Phase 1.

Soil tests were carried out and the results submitted as part of the original application. It is confirmed that both the Topsoil and Subsoil components of the profile are acidic in their pH values. As such either profile could be utilised to establish and sustain acid grassland habitat. No soils will be removed from site and original soil profiles re-created. The scheme as designed provides for the progressive stripping, temporary storage and/or direct placement of soils for restoration on a phased basis. All soil volumes have been quantified and detailed within the submitted application. These are re-stated in **Appendix D**. The protection and placement of the soils will be undertaken by the operator and monitored by the landowner as well as forming part of the Aftercare and Management Programme for the establishment of the acid grassland habitat and other restored land within the site to which Worcestershire County Council and other statutory bodies will be invited to monitor works on the ground.

***The Mineral Planning Authority requests confirmation that a wide woodland corridor (ideally no less than 30 metres) would be provided along the site's western boundary. This is because the County Ecologist notes that the Worcestershire Habitat Inventory indicates that this area provides a notable north-south linear woodland feature in the local landscape which, as currently partially fragmented, the restoration plan would ideally aim to reinforce this feature in the local landscape. Conversely, scattered woodland planting (as is shown in the north-western corner of the site) should be reconsidered due to increased management requirements or risk of deterioration of acidic grassland through succession of scrub and woodland.***

It is confirmed that this planting will be integrated within the enhanced and progressive restoration scheme. Please see **Appendix C**, Drawing No KD.LCF.010A for the Revised Concept Restoration Scheme.

***Submitted Drawing Numbered: Plan KD.LCF.021. Titled: 'Plant Site Layout – Plan & Elevations' shows no tree protection measures implemented in 'Soil Storage / Screening Bund 2'. The Mineral Planning Authority requests that this is re-examined as the proposed topography means likely contamination into the tree's drip zone of eroded bund material. The Arboricultural Report identifies that trees T4 and T19 are marked for retention and protection but would require that the extraction area is amended to ensure no working takes place within their root protection areas. The Mineral Planning Authority seeks confirmation that this is the case.***

It is confirmed that trees T4 and T19 will be retained and protected in full accordance with Access2Trees (The Arboricultural Consultant) specified root protection areas. As will all trees to be retained. In respect of the trees in proximity to the temporary soil storage / screening Bund 2 we have superimposed the proposed bund onto Access2Trees surveyed tree report to illustrate the actual required root protection area in context to Bund 2. Please see **Appendix E**.

***The Mineral Planning Authority wishes to draw the applicant's attention to the comments from the Environment Agency, who consider that the proposed restoration scheme could be improved and provide greater net gain for biodiversity and ecological benefits by establishing ecological linkages through wetland habitat and associated species. The Environment Agency consider that the proposed restoration plan does not go far enough to create robust ecological networks that could be utilised by a range of species within the landscape. They recommend that the restoration plan would benefit from creating some areas of permanent water with ephemeral wet pools dispersed between. If permanent pools were created as part of the restoration of the site, these could***



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***potentially function as ARK sites for the White Clawed Crayfish population in the Wyre Forest. The Environment Agency also advise that landscaped soakaway ponds could also contribute to biodiversity, if they were planted up with phragmites reedbed - a Worcestershire BAP habitat and valuable wildlife resource.***

The site is not within a wetland environmental setting. The localised ground water table being ~33-34m below existing ground levels. There is no opportunity to create permanent on-site water bodies. Water being directed back into the local ground water system. It is proposed to include landscape soakaway ponds and SuDS which could contribute to biodiversity. There are significant gains for biodiversity and ecological benefits and associated ecological linkages through the creation, establishment and management of native woodland, hedgerows and acid grassland as part of the advanced and progressive restoration of the site.

A Biodiversity Net Gain (BNG) assessment to determine the impact on biodiversity of the proposed mineral extraction at Lea Castle Farm is attached at **Appendix F** and the findings are summarised as follows:

The Biodiversity Net Gain calculations for the proposed scheme have been assessed using the DEFRA Biodiversity Metric 2.0 produced by Natural England and the Phase 1 Habitat Map produced as part of the PEA Report. The Biodiversity Metric 2.0 provides an updated way to measure and account for the losses, changes, and gains, in biodiversity as a result of development, or changes in land management, and includes a calculation tool to demonstrate these figures.

Based on the assessment conducted by Heatons Consultancy Ecologists using the Defra 2.0 Biodiversity Metric, the habitat biodiversity units represent an increase of 87.21% following the implementation of the proposed progressive restoration scheme. It is noted that the target level for a percentage increase is 10%. The scheme can therefore be seen to be very beneficial for habitat diversity.

### **Landscape**

***In view of the comments received from the County Landscape Officer, dated 20 March 2020, and the Hereford & Worcester Gardens Trust, dated 20 February 2020, the Mineral Planning Authority recommends that the applicant undertakes a review of the landscaping strategy in order to give greater priority to tree and hedge planting in those areas not constrained by extraction works. The County Landscape Officer states that the eastern part of the site is particularly open and while the County Landscape Officer accepts the mitigation proposed for screening of the later phases of extraction, it would be prudent to establish as many trees and hedging as possible so that contribution to screening would begin to take effect as the operations progress.***

It is confirmed that advanced planting has already taken place along the north eastern boundary of the site and that the underplanting and strengthening of existing hedges within the eastern area will take place (including hedgerow trees) in the first available planting season post *successful* determination of the application.

An additional 30m wide new native woodland block along the western boundary of Phase 2 and 3 is also proposed.

**Best and Most Versatile (BMV) Agricultural Land and Soils**

*Within their consultation response dated 1 May 2020, Natural England state whilst some of the restoration proposals on part of the BMV land are for non-agricultural purposes (woodland), Natural England considers the proposed reclamation to a biodiversity and amenity afteruse is acceptable, provided the methods used in the restoration and aftercare would enable the land to retain its longer term capability to be farmed to its land classification potential, thus remaining a high quality resource for the future.*

*Acid rich grassland can be considered as agricultural land, therefore, assuming that the restoration profile is similar to that of the agricultural restoration areas the 8.1 hectares of acid grassland can contribute to the restored BMV total, similarly for the woodland areas. The Mineral Planning Authority requests further information regarding the proposed restored soil profile for the woodland and acid grassland areas, including its suitability for these land uses.*

It is confirmed that restored land will retain its longer term capability to be farmed to its identified land classification potential, this will be achieved through the restoration of all temporarily disturbed land and soils and adherence to MAFF (2000) Good Practice Guide for Handling of Soils (version 04100, FRCA Cambridge Sheets 1,2,3,14 and 19), and the restoration placement of an average soil profile of 33cm topsoil over 37cm of subsoil over 50cm of overburden.

Given the suitability and available volume of current in-situ soils, and relatively low soil pH of between 4.9 to 6.0, it is proposed that the above restored soil profile is the same for agricultural land, acid grassland and tree and shrub establishment.

*Natural England consider that the submitted soil handling, restoration and aftercare proposals do not meet the requirements for sustainable minerals development, as set out in the National Planning Policy Framework and Government's Planning Practice Guidance, 'Minerals' Section, titled: 'Restoration and aftercare of minerals sites'. In seeking to address these concerns the Mineral Planning Authority request the submission of the following further information / clarification:*

- *No details are provided of the soils under the existing woodland or tracks. These soils form part of the soil resource of the site and should be included in a soil inventory. The inventory should be used to assess the volume of soils at the site and whether there is sufficient soil resource for the proposed restoration profiles. No details are provided of the target profiles under the new woodland or acid grassland. As a result, it is not clear whether there are sufficient soils on site. Natural England comments that the volumes of soils provided in the Environmental Statement at Section 4.5.2 do not tally with the areas provided in the table or elsewhere in the Environmental Statement. The Mineral Planning Authority seeks clarity regarding the soils resources at the start of the proposals and where they are to be placed.*

*The applicant's attention is drawn to Natural England's comment "the use of imported soils should be avoided if possible because soil is a finite resource. If there is no alternative, then the use of topsoils should be avoided".*

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No details were provided of the soils under existing woodlands or tracks as none of these areas are going to be disturbed as part of the application proposals i.e. these potential soil resources are not going to be affected.

In terms of Natural England's comments regarding the volume of soils provided in the Environmental Statement (and Planning Statement), there were typographical difference as a result of rounding up areas and volumes together with differing references to land area. For clarity, this information has been reproduced and is attached at Appendix D.

### Aftercare

***In accordance with the letter dated 1 May 2020 from Natural England, the Mineral Planning Authority request an Outline Aftercare Strategy is submitted. Natural England notes that although the soils are naturally free draining there should be a commitment to install under drainage during the aftercare period if required. This should to be considered in the design of the restoration proposals.***

An Aftercare Strategy and establishment details for all restoration land uses has been provided and are contained within **Appendix G**. Detailed seeding and species mixes can be adjusted and associated within a suitable condition. It is confirmed by the operator and the landowner that there is a commitment to install under drainage during the aftercare period if required.

### Materials for Restoration

***The Mineral Planning Authority questions if the likely availability of suitable fill materials and likely sources of inert material for the site's restoration are known?***

***In relation to the above point, the Mineral Planning Authority draws the applicant's attention to Draft Policy MLP 17: 'Prudent Use of Resources' of the Emerging Worcestershire Minerals Local Plan. Part C requires developers to "demonstrate that, throughout its lifetime, the proposed development will... balance the benefits of maximising extraction with any benefits of allowing sterilisation of some of the resource, taking account of:***

- i. the need for the mineral resource;***
- ii. the ability to deliver the relevant strategic corridor priorities;***
- iii. the ability to provide an appropriate landform for beneficial after-use;***
- iv. the ability to deliver high-quality restoration at the earliest opportunity;***
- v. the appropriateness of importing fill materials on to site, and the likely availability of suitable fill materials;***
- vi. the need to protect and enhance inherent landscape character; and***
- vii. the need to manage or mitigate impacts on the built, historic, natural and water environment and amenity".***

***Paragraphs 6.11-6.16 of the Emerging Worcestershire Minerals Local Plan set out further detail of the types of information which should be provided to meet these policy requirements.***

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Further information in respect of potential suitable source materials and their availability has been produced by the Operator and is provided within **Appendix H**.

As set out in Appendix H, there is an inert waste capacity gap in Worcestershire, placing ever increasing need for sites, such as Lea Caste Farm, which would be appropriately engineered, deliverable and accessed sustainably, to meet this increasing need. Furthermore, there is an anticipated increase in inert waste likely to be generated from large infrastructure projects in north Worcestershire and the West Midlands over the next 10 years.

The applicant is confident that market demand, growth projects in the area, increased housing demand will support the need for inert void at Lea Castle Farm over and above that permitted for the life of the site. Given the above, the deliverability of the restoration scheme at Lea Castle Farm with the importation of 60,000m<sup>3</sup> per annum is considered achievable.

### **Historic Environment**

*In view of the comments received from Wyre Forest District Council's Conservation Officer, dated 27 February 2020, the Mineral Planning Authority notes that further assessment of impact upon the Staffordshire and Worcestershire Canal Conservation Area was excluded from further assessment because it is screened from the application site by trees and topography. The Mineral Planning Authority requests that further assessment is undertaken to assess the potential impacts of noise and dust emissions on the intrinsic character of the Canal Conservation Area as experienced by those within it. As at this location, the Conservation Area runs through a tranquil setting, different from the industrial and urban landscapes of Stourport and Kidderminster and this is noted in the Conservation Area Appraisal.*

Worcestershire Archaeological Consultancy have appraised the works produced by WBM Acoustic Consultants and Vibrock Limited specialist consultants in Noise and Dust in respect of the Staffordshire and Worcestershire Canal Conservation Area and conclude that the intrinsic character of the Canal Conservation Area as experience by those within it will not be adversely affected. Please see **Appendix I** for detailed response.

*The Mineral Planning Authority also notes that paragraph 5.1.2 of the Archaeological Desk-Based Assessment refers to the "Wolverley and Staffordshire Canal Conservation Area", however, this is incorrect, as there are two Conservation Areas: a) Wolverley Conservation Area; and b) The Staffordshire and Worcestershire Canal Conservation Area. Please update accordingly.*

The two separate conservation areas have been picked up and considered within the application and contained within the Worcestershire Archaeological Consultancy report. We confirm and make reference to this within **Appendix I**.

### **Highways**

*In view of the comments received from the County Highways Officer, dated 26 February 2020, the Mineral Planning Authority requests clarification / further information in relation to the following:*

- *Clarification on HGV assignment assumptions. Explanation of the applicant's prediction in 5.18 and what evidence do you have on this matter?*
- *Clarification if the gradient is accounted for in 5.4, as it does not appear to have been.*

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- *County Highways originally requested a Safety Audit of the access and this has not been provided, this is required given the nature of the junction and types of vehicles using it.*
- *Note 5.26 – 5.27. This is not included in CD123, therefore, a sub 5% impact does not mean it is acceptable.*

### Clarification on HGV assignment assumptions

In terms of HGV assignment routes, in recent years, NRS has been delivering a business plan to develop a ring of quarries which generally surround the Birmingham conurbation - see attached plan at **Appendix J**.

In this regard, the business already has sites covering the following sectors of Birmingham: north and north-west, east and south-east. At the moment, NRS isn't able to sell competitively into the SW sector. Specific towns in mind are Kidderminster, Stourbridge and West Bromwich. Lea Castle potentially fulfils this objective, and the majority of the population mass would require customers to receive materials by vehicles turning left onto the A449. Unlike how most major aggregate suppliers operate, NRS will only run a single site in that area, so the situation is not confused by multiple supply options.

Looking at some detail, NRS has done a review of fixed outlets, such as ready-mix concrete plants, mortar manufacturers, builders merchants, and volumetric concrete manufacturers. This type of outlet represents roughly 70% of sales at other NRS quarries. The review showed there are approximately 23 fixed outlets which could logically be supplied with material from Lea Castle (within a 16 mile radius). Using the latter figure, and a logical assumption about traffic routes, the fixed outlets can be broken down into either 'left or right turn' at the junction to the A449.

The review shows 13 'left turns', and '10 right turns'. This appears to show a trend that reflects the population densities, and hence the level of customers (57% to 43%). NRS already has a trading arrangement at other quarries with 3 of the companies identified. These 3 companies between them operate 4 of the fixed outlets which would be main supply targets. Of these 4 sites, 3 are potential 'lefts turns'. Applying such weighting would take the figures in the region of 62% to 38%.

NRS are used to operating within an agreement for controlled highways access to ensure a 'no right turns policy' at their quarry in Telford. This is controlled by the access design, signage and a CCTV monitor system. The same mechanisms would operate at Lea Castle Farm.

### Clarification if the gradient is accounted for

The application of DMRB parameters of 2 seconds perception/reaction time and 0.25g deceleration rate for Y distance does not require corrections for gradient, as they are predicated on maintaining a continuous speed on the main alignment (ref paragraph 2.17 of TD41/95 – now withdrawn and replaced by CD123 which was issued in August 2019 after the report was prepared). However, the Y distances in TD 41/95 and CD123 (by reference to CD109) are the same. A gradient correction only needs to be applied when designing for vehicles to stop. For comparison, Table 5.22 of CD123, which provides deceleration lengths for right turn lanes within which vehicles are anticipated to stop (hence their provision), whilst there is a reduction in distance for uphill gradients above 4%, there is no correction for downhill gradients between 0 – 4% and above 4% on single carriageway routes. This is consistent with the advice in TD42/95 (also withdrawn and

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replaced by CD123), which confirmed the deceleration rate used to calculate the lane lengths was 0.375g at paragraph 7.41. The 0.375g deceleration rate is consistent with that of a safe slow-down/stop of a large vehicle (i.e. HGV) as confirmed in Manual for Streets 2 para 10.1.10 and Table 10.1. If WCC would rather we apply the deceleration rates for stopping, with a gradient correction, we can, but the distances will be shorter than those established in the report based on 2 seconds and 0.25g.

### Safety Audit

A Safety Audit has been carried out by RoyalHaskoningDHV with a response to the findings from the Hurlstone Partnership, and a confirmation from RoyalHaskoningDHV that they do not have any further comments at this stage. Both reports are attached at **Appendix K**.

The Safety audit relates to the proposed vehicular access into the new mineral extraction site from the B4189 Wolverley Road. The Audit has identified 4 potential issues along with proportionate and viable means of eliminating or mitigating the identified problems. The response from the Hurlstone Partnership has looked further into the identified problems and suggested further design solutions to the problems identified. RoyalHaskoningDHV responded that they do not have any further comments at this stage.

It is considered that with the implementation of the suggested design solutions, a suitable access with appropriate visibility splays can be achieved on a road which currently safely accommodates similar vehicle types and where the normal day to day variations in flow significantly exceed the quantum of development traffic. It is therefore concluded that there would not be an unacceptable impact on highway safety.

The more detailed information prepared as part of the detailed design package following the granting of planning permission would be submitted as part of the normal S278 process, which ultimately leads to construction of the works.

### Note 5.26 – 5.27

In relation to 5.26 – 5.27, it is agreed that the 5% impact is not included in CD123. As stated above the release of CD123 post-dated the report, so TD41/95 as referenced was extant at the time.

### **Public Rights of Way**

***In view of the comments received from the County Footpath Officer, dated 16 March 2020, further information is required in relation to the proposed buried conveyor belt under Bridleway WC-626, and its impacts in terms of noise and vibration upon bridleway users. In addition, further information is required in relation to the technical specifications of the installation of this conveyor, including confirmation that the proposed cover levels would be suitable to support any users of the route.***

A technical specification for the construction and temporary use of the below ground conveyor has been provided with **Appendix L**, together with a statement from the engineering designer, demonstrating how the potential for noise and vibration has been mitigated.

The conveyor tunnel is to be set below 600mm of concrete, on 300mm of well compacted hardcore, within a 2.4m internal diameter drainage ring. The surface can be the existing

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compacted earth. The conveyor is to be set on rubber anti-vibration brackets to prevent any vibration.

The slope over the crossing has been designed to allow impaired walkers easy access over the crossing, with gradients being minimal at 1:20.

The width of the crossing is 6.4 m, which is suitable for vehicles wishing to access nearby stables.

***The Mineral Planning Authority notes that Footpaths WC-622, WC-623 and WC- 624 are proposed to be upgraded to bridleway status. It is noted that Drawing Number: KD.LCF.010, Titled: ‘Concept Restoration Scheme’, shows an additional footpath / bridleway in the western part of the site, north of Footpath WC-624 and east of Footpath WC-623 leading to a proposed pocket park. This is not shown on Drawing Numbered: KD.LCF.026, Titled: ‘Current & Proposed Public Rights of Way (L & R Figure 5)’; or the drawings showing the phased working of the site. Please clarify or update the plans accordingly.***

***The Mineral Planning Authority requests that consideration is given to upgrading Footpaths WC-622, WC-623 and WC-624 to bridleway status and creation of the additional section of bridleway as soon as possible, noting that the British Horse Society in their comments, dated 19 March 2020 request that the additional multi-user route, proposed to the west of the quarry are achieved within the first 2 years rather than at the end of Phase 3.***

Proposed public access is confirmed along this link path to the pocket park. This is now illustrated on the Concept Restoration Scheme Drawing No. KD.LCF.010A (**Appendix C**) along with the confirmation that footpaths WC-622 (62 2(C)), WC-623 (62 3 (B)) and WC-624 (62 4(B)) are to be upgraded to public bridleways / multi-use access routes.

The public rights of way proposals take on board all suggestions from the British Horse Society which include bringing forward the majority of new bridleway multi-use routes in advance of the commencement of mineral extraction and an agreement from the applications landowners to upgrade public footpath references 62 2 (C) and 62 3 (B) to bridleways/ multiuse routes which run within their land ownership. The proposals are illustrated on attached plan references KD.LCF.033 and KD.LCF.034 (**Appendix M**).

If the scheme is permitted, NRS and the Landowner will establish a liaison group to communicate the timing of proposals, implementation, monitoring, and to receive feedback. A single point of contact from the operator team will coordinate to enable any issues to be picked up quickly and acted upon by the people on the ground.

### **Site Security**

***County Councillor Mary Rayner and District Councillor Sarah Rook in their comments dated 26 February 2020, raise safety concerns regarding trespass and accidents. Please describe the measures that would be put in place to secure the site.***

Health and safety concerns are paramount to the quarry, as a whole. The design and operations at Lea Castle Farm would conform to The Quarries Regulations 1999. Approved Code of Practice and associated guidance. The regulations aim to protect those working at a quarry and others who may be affected by quarrying activities e.g. those living, passing, or

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working nearby, or visitors to site. It is important to note that the operator will be under a legal duty which cannot be passed on to a third party to ensure that appropriate Health and Safety aspects associated with the site are assessed and implemented with due care and diligence.

As the regulations state, the obligation to ensure health and safety aspects relates to all, including potential for trespass. NRS have company Health and Safety personnel, who will produce Health and Safety audit and procedures, post determination of the application and in advance of any quarry operations on the ground.

### Drawings

***Hereford & Worcester Gardens Trust in their comments, dated 20 February 2020 and North Worcestershire Water Management in their comments, dated 12 March 2020 are unsure about the final levels of the site. Hereford & Worcester Gardens Trust comment that they would not wish to see the proposed tree avenue as an elevated strip of land across a lower level park. The Mineral Planning Authority notes that the submitted Drawing Numbered: KD.LCF.028, Titled: 'Restoration Sections', is drawn at a scale (1:1,250) that it is difficult to appreciate the impact of the proposals. Please amended accordingly.***

Please see attached at **Appendix C**, the Revised Concept Restoration Scheme Drawing No. KD.LCF.010A, the Surface Water Management Plan showing revised restoration contours Drawing No. KD.LCF.032 and Restoration Sections Drawing No. KD.LCF.036, through the area of the restored Site and the avenue. The drawings illustrate that there will be a variety of restored land gradients integrated into the undisturbed adjacent land. The proposed tree avenue being located on land to be undisturbed, integrating into restored land gradients which are similar to existing along the majority of its length.

### Conclusion

This report sets out the further information / clarification in response to Worcestershire County Council's (MPA) request for clarification and additional information requested on the 5<sup>th</sup> June 2020.

In preparing this Regulation 25 Report, consideration has been given to all responses received / concerns raised during the consultation period with revisions to the development.

The Environmental Statement (which accompanied the Planning Application) concluded that, with the implementation of suitable mitigation measures, the development proposal will not result in any unacceptable adverse environmental or amenity impacts. The additional information provided in respect of the Regulation 25 Report does not alter this conclusion.

The relevant local and national planning policy tests have been re-visited / reconsidered in respect of each of the considerations (e.g. ecology / nature conservation etc.). The development proposal complies with the thrust and intent of local and national planning policy.