GP PLANNING LTD

DUST MANAGEMENT PLAN

PROPOSED EXTENSION OF SAND & GRAVEL OPERATIONS
AND RESTORATION TO AGRICULTURE & NATURE
CONSERVATION BENEFITS USING IMPORTED INERT WASTE

UPPER LYDE QUARRY, LAND OFF MORETON ROAD,
UPPER LYDE, HEREFORDSHIRE

HUSSAR MINERALS LTD (APPLICANT)
HEREFORD QUARRIES LTD (OPERATOR)

JULY 2023

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Dust Management Plan		
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1 INTRODUCTION

1.1 Overview of Operations

1.1.1 This Dust Management Plan (DMP) relates to the extension to Upper Lyde Quarry, Moreton Road, Upper Lyde, Herefordshire involving the extraction of sand and gravel and the restoration of the land using imported inert waste material to agriculture and nature conservation benefits. Hereford Quarries Ltd will remain as the quarry operator.

1.1.2 The proposal seeks planning permission to extend the existing sand and gravel quarry with the restoration of the land to agriculture and benefits to nature conservation assisted by the importation of inert waste to bring the land back to original ground levels. The site is currently worked with an excavator with all top and subsoils stripped and stored and excavated material dry screened before being transported off site for use in ready mixed concrete manufacturing and sold as graded aggregate.

1.1.3 The DMP accompanies a Planning Application and sets out procedures to minimise the risk of dust and particulate matter emissions impacts from the inert recycling operations. It will identify the operations which have a potential impact upon air quality in the locality and detail the operational control measures which are implemented to minimise any impacts.

1.2 The Application Site and its Setting

1.2.1 The Site lies in Pipe and Lyde parish, to the north of the village of Upper Lyde, on the western side of the A49, and approximately 1 kilometre southwest of Moreton on Lugg. The proposed extension areas to Upper Lyde Quarry are currently in agricultural use.

1.2.2 The A49 lies approximately 1 kilometre east of the existing gravel workings with an approved existing quarry entrance off the junction with Upper Lyde Lane and Moreton Road, together with established highway improvements (passing bays) along Moreton Road (as approved under planning permission CW2001/0769/M - the formation of a 230 metre long haul road across the field).

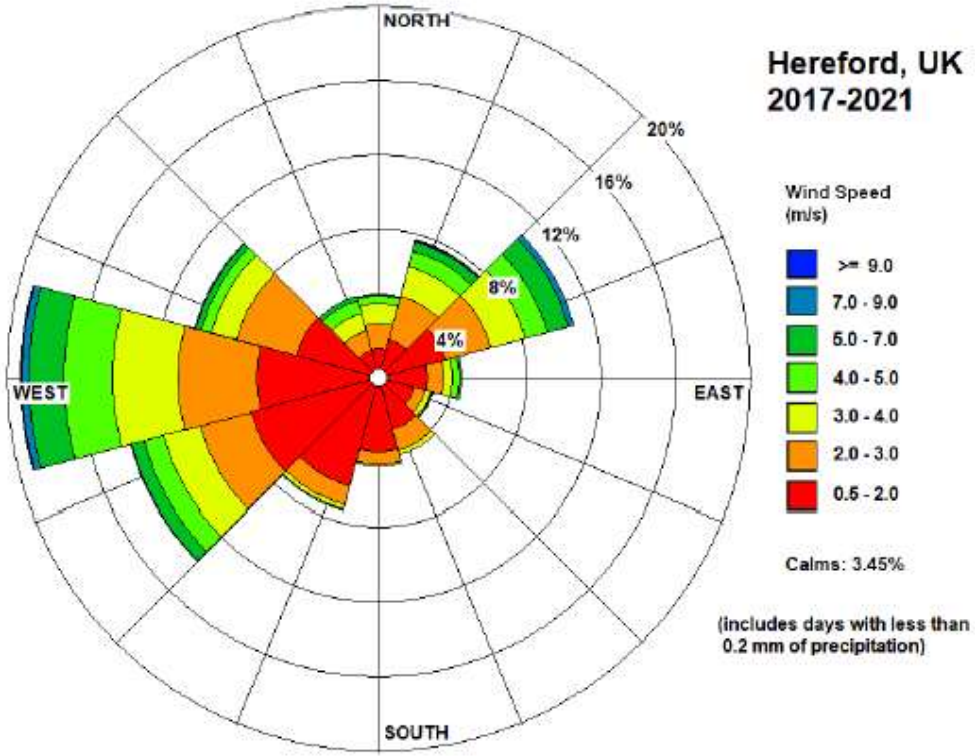
1.2.3 Upper Lyde Quarry is located within the Parish of Pipe and Lyde around 2.5km north of the city of Hereford and 1.5 km to the southwest of Morton-on-Lugg. The village of Burghill is around 1km to the west. The site is roughly rectangular, about 180 metres by 130 metres on its longest sides, giving a total site area of 2.43ha. The site has its own access off the unclassified 73007 which is around 20m off Morton Bank which connects the A49 to the A4110 Canon Pyon Road. The quarry is part of a wider block of farmland which has been in arable use for many years.

1.2.4 The nearest houses to the Site are Braemar, Windrush, Fayre View, Springfield, Apple Tree Cottage and Bewdley House and are shown on the Sensitive Locations diagram enclosed at Appendix 2 to this DMP. The properties of Upper Lyde further to the south (Moss Cottage, Upper Lyde Cottages, The Barn, Buttercup Cottage and Sweet Apple Cottage) are also shown on the diagram enclosed at Appendix 2 to this DMP.

1.2.5 There are no watercourses in the immediate vicinity of the site. The site is located in Flood Zone 1.

1.3 Wind Rose

1.3.1 The wind rose data for Grantham below shows that the wind direction in the locality is predominantly a south westerly wind.



2 OVERVIEW OF THE OPERATIONS

2.1 Introduction

2.1.1 The extraction of sand and gravel will be progressively worked and restored over the operational life of the quarry. The area of extraction will be split notionally into 3 main working and restoration phases. The indicative working phases are shown on drawing reference GPP/HQ/ULE/22/04 v04 – Phased Working & Restoration Plan. The sequence of the phasing together with indicative timescales is shown on drawing reference GPP/HQ/ULE/22/05 v04 – Phased Working Stages Plan. The quarry would be worked in the same manner as the existing operations, with minimal plant requirements. Topsoil and subsoil will be stripped and stored separately. All stripped soils will be stored on the perimeter of the site to provide visual screening and noise attenuation.

2.1.2 An excavator is used to extract the mineral, which is loaded directly into a 3-way screen. To minimise noise at the surrounding properties, the plant is operated at the base of the workings, and effectively screened. In addition to the extraction and screening plant, a loading shovel operates periodically throughout the day, used to move the processed material into stockpiles. The material will then be loaded into road going HGVs which will transport the material to the Applicant's Lugg Bridge site for washing before being distributed to end users.

2.1.3 In addition to the main processing operations, a crusher is operated periodically on site to process the larger stones. This plant operates potentially 1 – 2 days per month, when sufficient material is available to process. The crusher is operated at the base of the quarry to minimise noise levels at the surrounding properties. During periods when the crusher is operational, no extraction or screening is carried out, as the operator is required to operate the crusher.

2.1.4 Screening bunds left in place for more than six months will be seeded to improve stability and for aesthetic purposes. Subsoil screening bunds will be approximately 5m in height, and topsoil bunds approximately 3m in height. Soils will be stripped with an excavator and/or a bulldozer. The dozer

typically operates for up to 25% of the time, with the operator swapping between the dozer and the loading shovel throughout the day. All soil stripping and handling operations will be undertaken in accordance with published guidance and best practice.

2.1.5 The land will be progressively restored back to original ground levels using imported inert waste materials. The restoration strategy is to bring the land back to an agricultural use with a biodiversity net gain for nature conservation.

2.2 Mobile Plant & Equipment

2.2.1 The following main items of plant and equipment will be used on-site:

- 1 30t excavator
- 1 CAT D6N Dozer
- 1 JCB loading shovel
- 3-Way Screen Loaded with Komatsu PC210 Excavator
- HGV Movements

2.3 Timescales & Quantum's

2.3.1 It is estimated that the Application Site will yield approximately 288,000 tonnes (this assumes mineral is fully worked out) of sand and gravel, with extraction up to 10 metres deep in places. The material will be extracted at approximately 50,000 tonnes per annum.

2.3.2 The proposed operations are likely to take around 10 years to complete (from site set up to completion of restoration). Ultimately, the extraction rate will depend on the strength and demand from the local market and the restoration progress on the rate of imported inert materials (and subject to the restriction of HGV movements.

2.4 Hours of Operation

2.4.1 The proposed hours of operation will accord with the existing quarry development planning permission as follows:

No machinery other than pumps shall be operated and no process shall be carried out outside the following times: 0700 hours and 1800 hours Mondays to Fridays and 0700 hours and 1300 on Saturdays nor at any time on Sundays, Bank or Public Holidays, with the exception of operations for the formation of and subsequent removal of material from, any soil storage mounds or noise amelioration bunds which shall only be undertaken between 0800 hours and 1700 hours on Mondays to Fridays only.

No excavated material shall be removed from, or infilling materials brought into, the site between the hours of 8.00 hours and 9.00 hours and 15.00 hours and 17.00 hours Mondays to Fridays.

2.5 Access, Haul Roads & Wheel Cleaning

2.5.1 For phases 1 and 2 (see drawing GPP/HQ/ULE/22/04 v04 – Phased Working & Restoration Plan enclosed with the Planning Application submission)) the existing site entrance will be used near the junction with Upper Lyde Lane and Moreton Road to export mineral from the site and import inert fill material in road going heavy goods vehicles (HGV's).

2.5.2 To enable mineral to be exported by road going HGV's for phase 3 of the proposed development A new vehicular access will be formed off the eastern side of Upper Lyde Road, approximately 40m south of the existing western access. The access will be formed with a 6.5m carriageway width, and 12m and 6m corner radii to the north and south, respectively.

2.5.3 Wheel cleaning facilities will be used for all phases of mineral extraction and restoration works.

3 DUST AND PARTICUALTE MANAGEMENT

3.1 Responsibility for Implementation of the DMP

3.1.1 The Site Manager will be responsible for the management of particulate matter and site staff will be trained appropriately. The technically competent Site Manager will appoint a suitably trained deputy to oversee the management of particulate matter at the site during operational periods when the technically competent manager is not present at the site. The technically competent Site Manager will provide the training for the deputy. The training will include refresher training where appropriate. However, during normal operations at the site the experienced site staff, including the deputy, will undertake on the job training which will complement the refresher training as required.

3.2 Sources and Control of Fugitive Dust/Particulate Emissions

3.2.1 The following sets out the operations at the site which have the potential to produce dust and particulates:

- Screening Mobile Plant – Screen/movement of material;
- Vehicles entering and/or leaving the site – Detritus on the public highway;
- Debris falling off lorries which arrive unsheeted;
- Vehicles exhaust emissions, and
- Delivery/collection of material – Tipping and loading of material.

3.3 Source-Pathway-Receptor Routes

3.3.1 The following table sets out the source pathway receptor model for the site.

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
3 Way Screen and movement of material.	Air transport - inhalation or deposition.	Local human population and habitats	Harm to human health – respiratory irritation, nuisance and/or illness.	Visual dust monitoring is undertaken daily by the Site Manager. Activities on site will be stopped if necessary. Water is used to dampen down waste stockpiles when required. Permitted waste types do not include dusts, powders or loose fibres.
Vehicles entering and/or leaving the site.	As above.	As above.	As above.	Minimise source strength by means of low drop heights, profiling and shielding of piles from wind whipping, positioning sources away from receptors. Also wetting of certain materials.
Debris falling off vehicles.	As above.	As above.	As above.	Ensure all vehicles entering and leaving the site are sheeted/enclosed.
Vehicle exhaust emissions.	As above.	As above.	As above.	Regulatory controls and best-practice measures to minimise source strength.
Loading and unloading of vehicles.	As above.	As above.	As above.	Minimise drop heights. Tipping/loading will not be undertaken during extremely windy weather conditions.
Vehicles traversing around the quarry haul roads	`As above.	As above.	As above.	Minimizing on site limits to 5mph – use of a water bowser

3.4 Control of dust/particulates (PM10) and other emissions

3.4.1 There will be a range of mitigation measures put in place to ensure that the operations do not have an adverse impact as a result of dust on the limited number of surrounding receptors including flora and fauna. These measures will include the following:

- Daily visual inspections of the site will be carried out by the Site Manager, at the start of the operations and throughout the day. Visual inspections will be undertaken from the site portacabins which provides a clear vantage point to judge whether the operations are giving rise to adverse dust emission. There will be a particular focus during dry windy weather to ensure that all potential or actual dust sources are identified and treated promptly with the application of water;
- As an over-riding requirement, if any operations are identified as causing or likely to cause visible dust emissions across the boundary of the site, those operations will be modified, reduced or suspended until effective remedial action can be taken or the conditions giving rise to the emissions have been moderated;
- General matters and the management of the site can affect the likelihood of significant dust emissions. These include:
    1. Use of a water bowser to damp down dust on the areas of the site that is generating dust. Those areas will be subject to daily monitoring and further water applied as required, particularly during dry and wind weather.
    2. Implement high standards of house-keeping to minimise track-out and windblown dust;
    3. A preventative maintenance programme, including readily available spares, to ensure the efficient operation of equipment, and
    4. Effective staff training in respect of the causes and prevention of dust.
- Handling of material will be suspended near to the site boundaries when the wind conditions are likely to result in visible dust being carried off-site;

- Loading and tipping heights will be minimised. Wherever possible, loading and tipping operations will take place in sheltered locations such as in the lee of existing mounds and stockpiles;
- The site adopts an anti-idling policy across the site for all vehicles and plant to minimise the generation of fine particulates;
- Standard good practice for site haulage will include:
    1. Regular grading and compaction to maintain smooth well-drained surfaces;
    2. Setting a speed limit of 5mph;
    3. Fitting site vehicles and plant with upswept exhausts and radiator fan shields, and
    4. Evenly loading vehicles to avoid spillages.
- The internal access road will be sprayed regularly in dry conditions using a water bowser;
- The surface of the access road will be damped down and will be maintained as necessary to ensure effective dust control. In the event of track-out being carried onto the public highway, a road sweeper will be deployed to remedy the matter if required;
- Should visible dust be blown from any stockpiles mounds the relevant surfaces will be treated with water, and
- All existing staff will be trained in this procedure. All new staff will be trained within a month of commencing employment.

3.4.2 The mitigation of emissions of fine particulate matter will be achieved primarily by means of the above dust management and control measures.

4 PARTICULATE MATTER MONITORING

4.1 Visual Monitoring

4.1.1 The Site Manager and trained staff will ensure that site operations are the subject of visual monitoring for emissions of particulate matter. Visual inspections will be undertaken from the site boundary which provides a clear vantage point to judge whether the operations are giving rise to adverse dust emission. Visual monitoring by suitably trained site personnel is the most effective method of detecting as quickly as possible emissions of particulate matter throughout the working day thereby facilitating the prompt assessment of such emissions and the selection and implementation of control measures as necessary. The effectiveness of the measures for controlling emissions shall be assessed during inspections undertaken at the site following implementation of the control measures. Any problem that is observed will be reported to the Site Manager who will be responsible for investigating the cause and implementing any remedial action as necessary. The results of inspections and remedial measures taken will be recorded in the site filing system.

4.1.2 Site staff will be trained to be aware of, and to identify, visual releases of particulate matter so that, based on consideration of the location of the release and the prevailing wind direction, the correct selection is made to implement the appropriate control measures. Training will be provided by a suitably trained person who is experienced in the visual assessment of particulate matter emissions from waste facilities. During the course of routine operations at the site the experience gained by site staff provides on the job training which compliments the initial training. All staff will be subject to continued performance reviews which includes assessment of their general environmental awareness.

4.1.3 Site staff will report any visible dust emissions that are observed to the Site Manager who should be responsible for investigating the cause and implementing any remedial action as necessary. Incidents and remedial measures taken shall be recorded in the site filing system. Senior management will review the visual monitoring results on a weekly basis.

4.2 Out of Hours Arrangements

4.2.1 The site is securely locked at the end of each day and hence a very low risk of any emissions from non-operational plant. An end of shift check will ensure all material removed from the operational area and any identified accumulated materials removed.

4.2.2 If a dust event is reported to the Site Manager, they will attend site and establish where the problem is occurring. Water is available would be used to dampen the waste piles or hard surfaced areas generating dust emissions.

4.3 Dust Monitoring Equipment

4.3.1 As the site is not located in an Air Quality Management Area (AQMA) declared for Particulate Matter PM10, visual monitoring is the most appropriate method for monitoring dust emissions at site.

4.4 Particulate Matter Monitoring

4.4.1 The management and monitoring of particulate matter will be undertaken by visual assessment. An action plan will be implemented on the basis that: i) there is an unacceptable visual emission of particulate matter from the site or ii) a complaint is received in relation to emissions to air. An unacceptable visual emission of particulate matter from the facility comprises a visual observation of dust or particulate matter crossing the site boundary. The initial observation will be made by the site personnel who has identified the emission and will be verified by the Site Manager.

4.4.2 If an unacceptable visual emission is observed by the Site Manager or on-site personnel, the action plan (see below) will be implemented immediately. If a complaint has been received by the operator a number of hours (or even days) after the activity that may have contributed to the complaint has ceased, an investigation into the complaint will be based on a review of the information and observations recorded at the site

corresponding to the time at which the complainant observed the event. The timescale for implementation of the action plan will therefore vary depending on the circumstances under which it is implemented.

4.5 Action Plan

4.5.1 The Action Plan will be reviewed every 6-month period and in the event of an incident occurring. In the event that an unacceptable visual emission of particulate matter from the site operations is observed by site personnel the event will be investigated immediately by the Site Manager or Authorised Deputy to determine the source as follows:

4.5.2 If it is established that the emissions are attributable to activities being undertaken at the site action will be taken to control the emissions including where relevant:

- If necessary, the activities being undertaken including unloading and loading of material will cease until the matter is rectified;
- Confirm that vehicles are obeying the speed limits on site;
- Identify whether there are any other activities being undertaken at locations other than the site and estimate the extent to which other activities may contribute to the visual emissions observed on the site including circumstances where windblown dust may be transported across and/or over the site from the external sources, and
- In the unlikely event that the routine control measures employed at the site are not sufficient to control particulate matter emissions then consideration will be given to further measures to minimise and control emissions.

4.5.3 In the event of a complaint associated with particulate matter emitted from the site an investigation will be undertaken immediately to determine the source as follows:

- Identify from meteorological data available whether the emissions are potentially a result of the operations at the site;

- Identify from the site log whether there were any unusual regional weather events occurring during the day on which the complaint was made such as strong winds;
- Identify from the site log what activities were being undertaken at the time at which the complaint event occurred and in which location at the site and review the waste operations and types of waste that were accepted and handled at the site on that day;
- Giving consideration to the wind direction, identify from the site diary whether there were any other activities being undertaken at locations other than the site with the potential to release particulate matter, for example harvesting;
- If it is established that the emissions were attributable to activities being undertaken at the site, as necessary review the relevant operational procedures and implement improvements and provide additional training to site personnel and third-party contractors to improve the level of control and minimise future emissions,
- Senior management will provide a review of all complaints. If a number of complaints are received, the operations will ceased until satisfactory remedial action has been undertaken.
- The action taken will be communicated to the Environment Agency as appropriate. The nature of the complaint, the findings of the investigation and the action taken will be recorded.

4.6 Complaints Procedure

4.6.1 Any complaints made about operations on the site must be made by telephoning the operator or in writing or by using the Dust Complaints form (Appendix 1).

4.6.2 To gather enough information to enable a proper investigation, all complaints received must provide as a minimum the level of detail required by the complaints form (Appendix 1). All complaints will be responded to within 5 working days of receipt.

4.6.3 Complaints will be investigated by the operator to find a cause of the complaint using information from the site diary to determine the cause. As necessary, operational procedures will be updated, and staff will receive refresher training on procedures.

4.6.4 A copy of the complaint, investigation and response will be recorded and made available to the Environment Agency for inspection.

4.6.5 Any complaints received by the site directly will be notified to the Environment Agency by using the hotline telephone number or national email address and the notification form in Schedule 5 of the environmental permit. A copy of the sent notification form and any attachments will be retained by the operator's head office.

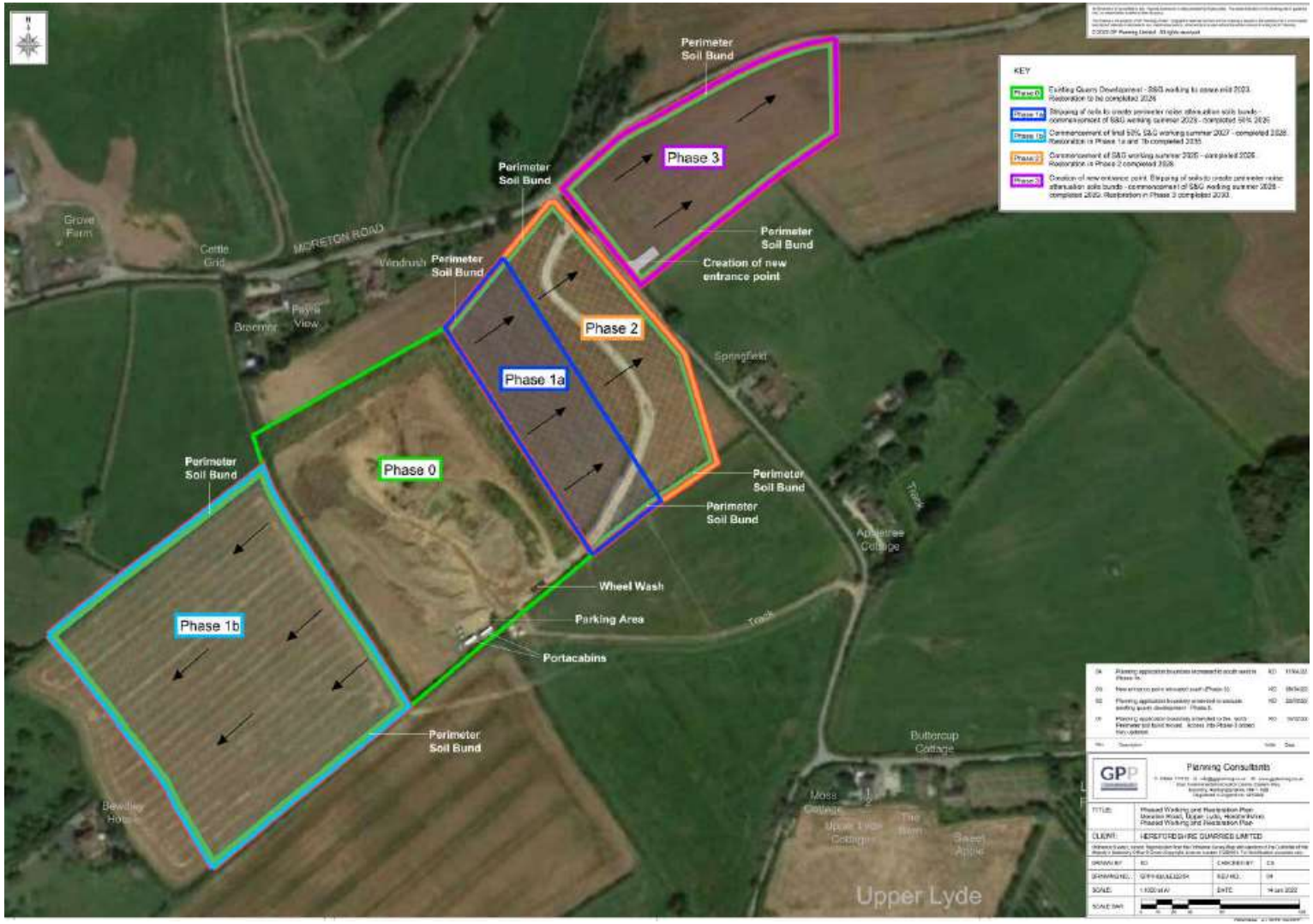
APPENDIX 1: COMPLAINT FORM

Customer Details	
Customer Name -	
Address – Postcode -	
Customer Contact Details -	
Tel -	
Email -	
Date -	
Complaint Ref Number -	
Complaint Details -	

Investigation Details	
Investigation carried out by -	
Position -	
Date & time investigation carried out -	
Weather conditions -	
Wind direction and speed -	
Investigation findings -	

Feedback given to Environment Agency and/or local authority -	
Date feedback given -	
Feedback given to public -	
Date feedback given -	
Review and Improve	
Improvements needed to prevent a reoccurrence -	
Proposed date for completion of the improvements -	
Actual date for completion -	
If different insert reason for delay -	
Does the dust management plan need to be updated -	
Date that the dust management plan was updated -	
Closure	
Site manager review date	
Site manager signature to confirm no further action required	

APPENDIX 2: SENSITIVE LOCATIONS



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