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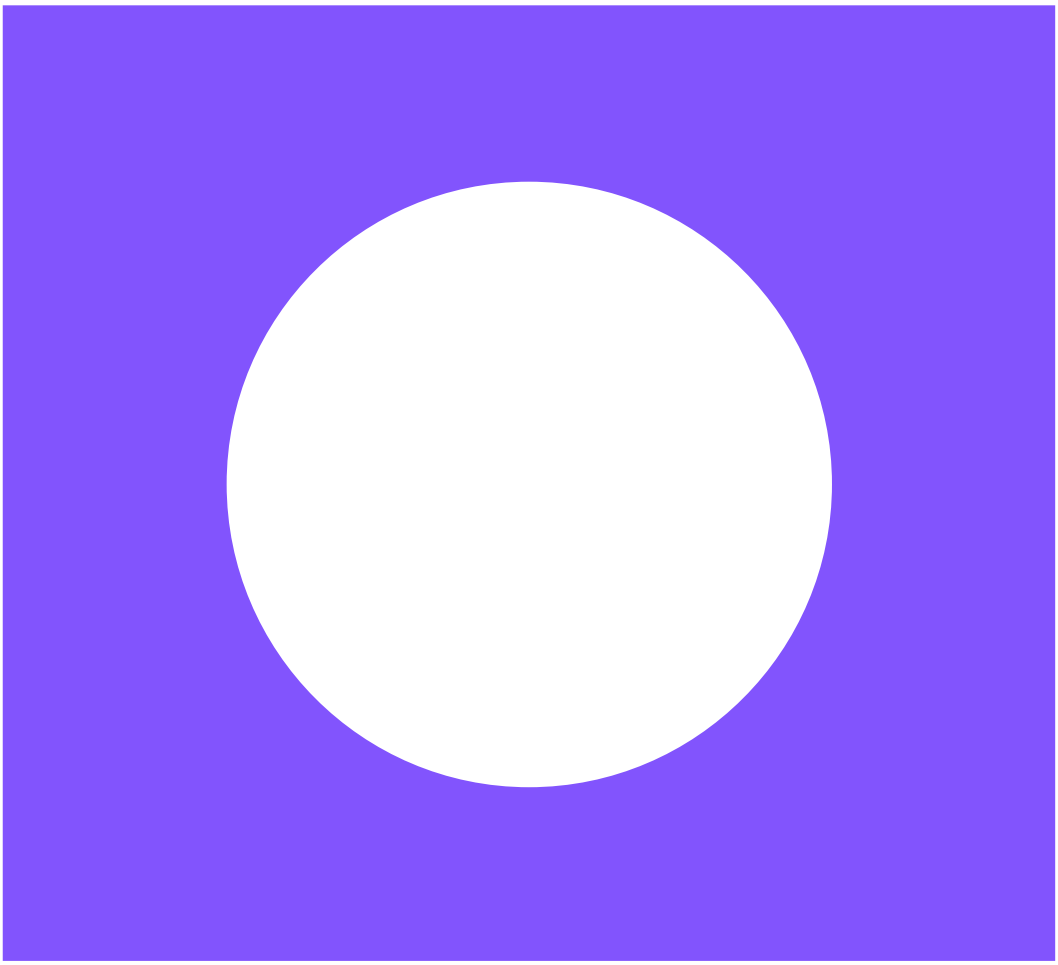

Dust and Emissions Management Plan

Swanworth Quarry

February 2025

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Mott MacDonald
7th Floor
26 Whitehall Road
Leeds LS12 1BE
United Kingdom

T +44 (0)113 394 6700
mottmac.com

Dust and Emissions Management Plan

Swanworth Quarry

February 2025

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
1	February 2025	O Ellson	L McDermott	Anita Manns	First issue

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Contents

1 Introduction

1.1 Overview

This Dust Emissions Management Plan (DEMP) supports the environmental permit application for the deposit for recovery of inert waste within the lateral extension of Swanworth Quarry, Dorset, once the winning and working of limestone is being undertaken.

Swanworth Quarry is a limestone quarry located west of Swanage in the Isle of Purbeck and north of St Aldhelm's Head. The nearest village to the site is Worth Matravers which is 400m to the south. The postcode for the site is BH19 3LE. The 100m National Grid Reference (NGR) for the existing quarry is SY 969 781 and it is marked as Swanworth Quarries on the Ordnance Survey 1:25,000 Purbeck and South Dorset map. The site boundary is shown in Figure 1.

Swanworth Quarry is operated by Suttle Stone Quarries (Suttles), who supply a variety of crushed rock construction materials to the Dorset area and are responsible for over 50% of all crushed rock produced in Dorset.

Suttles has an existing permit (EPR/CB3030RQ) that covers a recovery operation and a recycling operation and permits the crushing and screening of inert waste in its main quarry. Please note that for the purpose of this plan, the term Swanworth Quarry has been used to encompass activities in both the existing main quarry and the proposed lateral extension area. The term site has been used to exclusively describe the activities within the proposed extension area.

In 2020, Suttles applied for a planning permission (application reference 6/2020/0321_1). This application was to continue the winning and working of limestone through the lateral extension to the site, retention of processing plant and existing infrastructure, importation of inert waste material for restoration purposes, and continued production and sale of recycled aggregates. Planning Permission was granted on the 15 December 2023 by Dorset Council. Suttles are currently within the process of applying for an additional environmental permit to allow clean inert waste to be accepted and used within the lateral extension area.

The lateral quarry extension area is located approximately 0.5km southwards of the B3069 road between Corfe Castle and Swanage, around 1km north west of Worth Matravers, and some 5km west of Swanage, Dorset. The application site is located in the Dorset Area of Outstanding Natural Beauty (AONB). The extension area covers around 12ha with the existing site covering an area of 36ha.

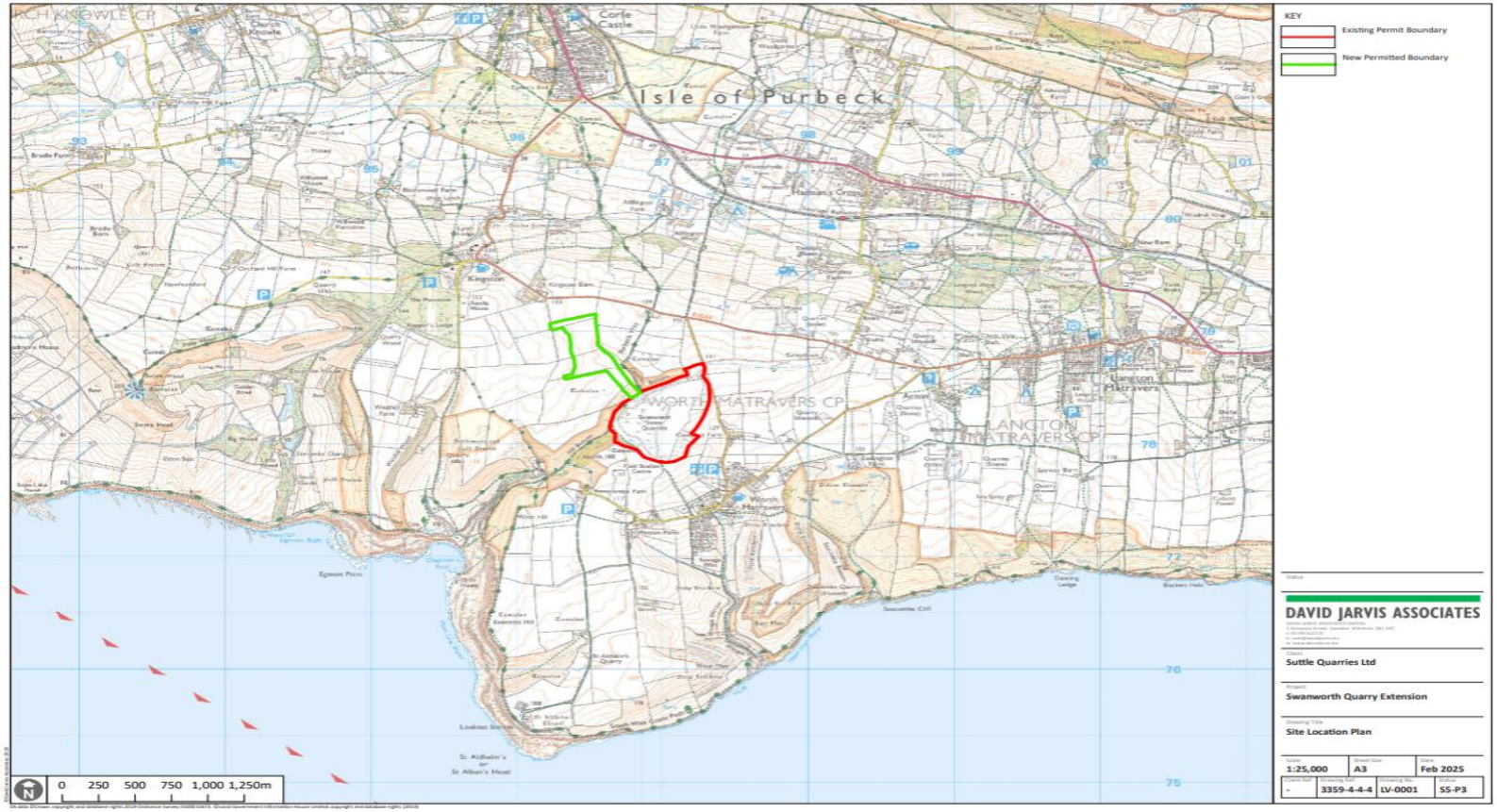
The site is not located in an Air Quality Management Area.

This document supplements the dust control measures set out in Appendix A of the Air Quality Assessment[1] produced for the site, this document lists conditions which are part of the planning application and shall be employed at all times at the site.

This document forms part of the site's management plan and is intended for use by all operational staff at the site. The plan will be held electronically on the company's server.

[1] Vibrock (2019) Air quality assessment for a proposed northern extension to Swanworth Quarry, Dorset. Last reviewed February 2025.

Figure 1: Site location and boundary



Source: David Jarvis Associates (2025)[2]

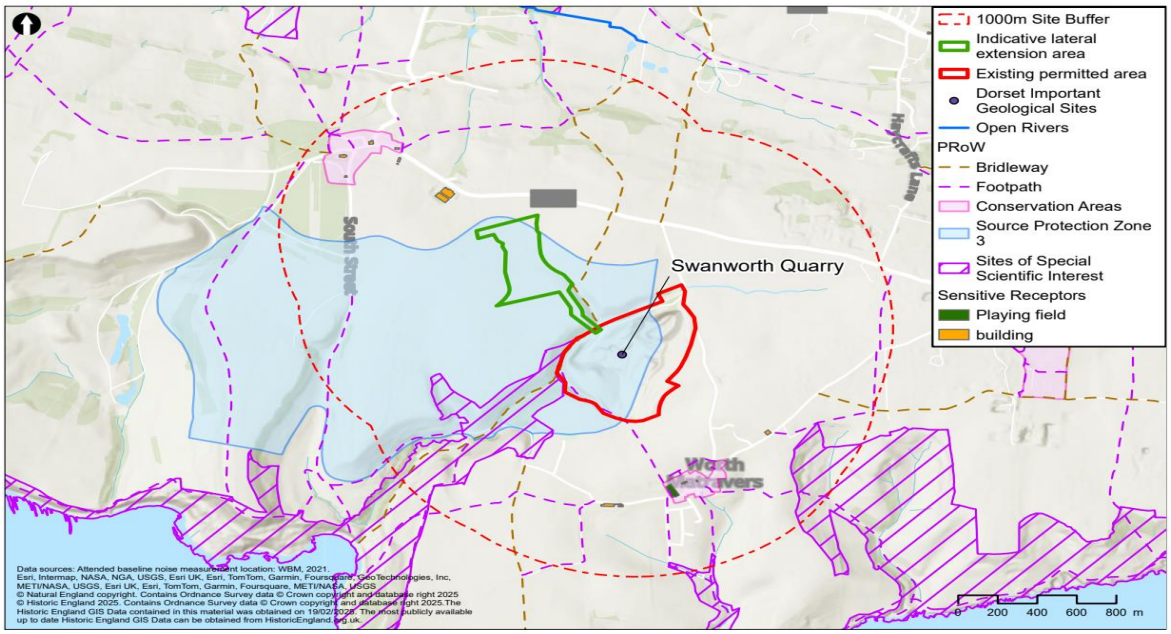
[2] David Jarvis Associates (2025) Site location plan. Drawing number LV-0001. Last reviewed February 2025.

1.2 Sensitive receptors

Figure 1.2 presents a summary of all sensitive receptors within a 1km radius of the site.

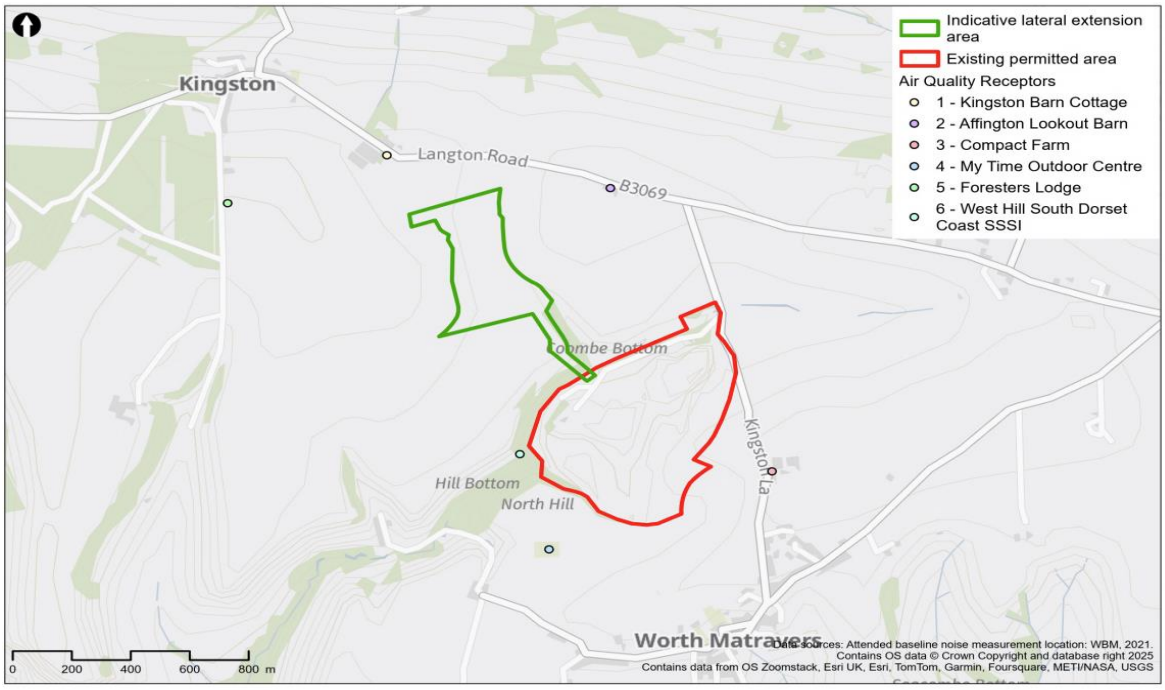
Figure 1.3 presents the nearest receptors to the proposed extension area. The closest sensitive receptors to the proposed extension are detailed in Table 1.1.

Figure 1.2: Sensitive receptors within a 1000m radius from the site



Source: Mott MacDonald

Figure 1.3: Nearest sensitive receptors to the site



Source: Mott MacDonald

Table 1.1: Details of nearest receptors to the lateral extension area

Number	Receptor name	Direction from the site	Approximate distance to the site (meters)
1	Kingston Barn Cottage	South east	590 m
2	Afflington Lookout Barn	South west/west	250m
3	Compact Farm	North west	700m
4	My Time Outdoor Centre	North east	650m
5	Foresters Lodge	South east	582m
6	South Dorset Coast Site of Significant Scientific Interest (SSSI)	North east	105m

It should also be noted that the below statutory protected sites are located within 2km of the extension area:

- Dorset Heaths Special Area of Protection (SAP), to the north of the site
- Dorset Heathlands Ramsar, to the north of the site
- Corfe Common SSSI, to the north of the site
- Blashenwell Farm SSSI, to the north west of the site
- Isle of Portland to Studland Cliffs Special Area of Conservation (SAC), to the south west of the site
- St. Albans Head to Durlston Head SAC, to the south east of the site

Non-statutory protected sites located within 2km of the extension area:

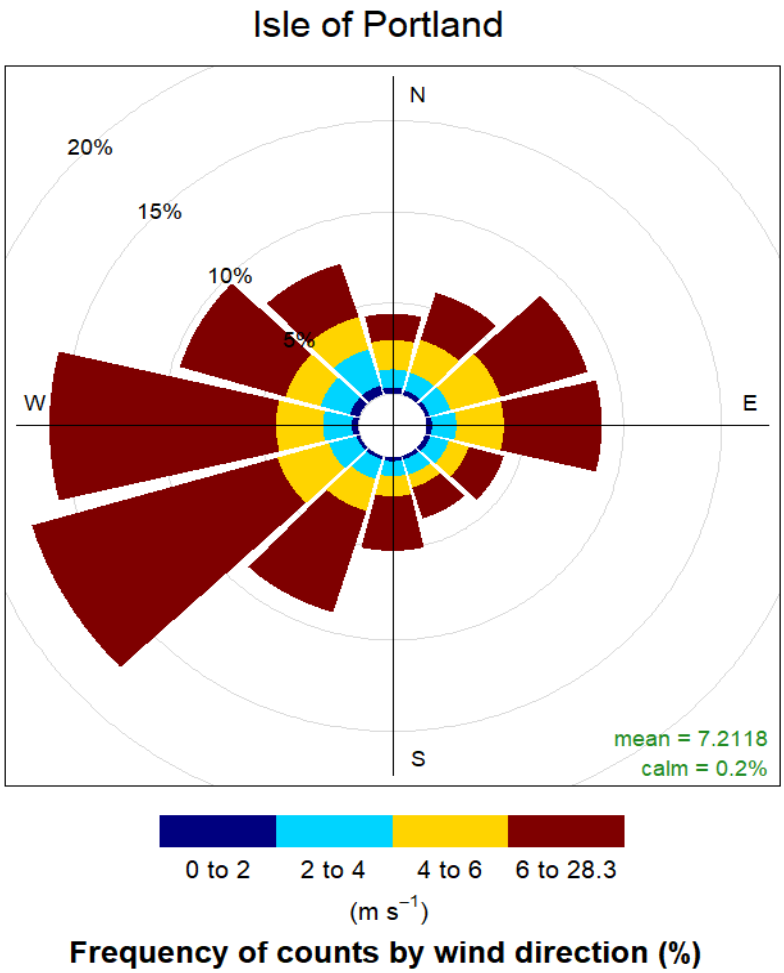
- The site is located within the Jurassic heritage coast line
- The northern area of the site is located within a catchment area for a Zone III Source Protection Zone

The site has never received any dust complaints from any of the sensitive receptors, please see section 2.2.3 and 3.2.1 for more details on how the site controls dust emissions on site.

Due to the site's location, the main known sources/producers of dust within a 1000m radius of Swanworth Quarry are related to farming. Dust can be generated from farming practices such as the ploughing of dry soils and combine harvesting.

It should also be noted that the existing site's activities located in the main quarry (permitted under EPR/CB3030RQ) also have the potential to generate dust. The main quarry is subject to dust control measures (including best practice measure specified in this plan) and has a long history of controlling dust emission in accordance with its permit and planning permission.

Figure 1.4: Wind rose showing the average wind direction and strength at the site



Source: Mott MacDonald

2 Operations at Swanworth Quarry

The wider operations at Swanworth Quarry involved in the extraction and movement of limestone have the potential to generate dust emissions. The proposed quarry extension area lies to the north west of the existing workings at Swanworth Quarry into which it is proposed to extend limestone extraction. The extension will be progressively worked in a phased manner and restored consistent with the existing operational practices on site. The operators on site are already subject to specific controls through the planning conditions granted for the proposed extension area.

2.1 Waste deliveries to Swanworth Quarry

Waste is delivered into site in Heavy Goods Vehicles (HGV). All drivers delivering waste to the site are instructed to sheet or net their loads to prevent any windblown, dusts and debris during transportation.

Materials brought into the extension area will be weighed in on the weighbridge and a waste transfer note is received from the delivery driver. This will be in one of two forms:

- A digital ticket generated from the Suttles HGV Driver using Fissara Move software.
- Customers own version of a Waste Transfer Note (WTN) (this will contain as a minimum; date, material nature and quality, place of origin, quantity by weight, carrier and supplier if different).

A copy is kept on site for all deliveries, these records are kept for a minimum of two years.

Table 2.1 presents the waste types and proposed European Waste Catalogue (EWC) codes that will be accepted within the site's lateral extension area under the new environmental permit. No wastes comprising solely of dusts are accepted into site.

It should be noted that the existing environmental permit (EPR/CB3030RQ) at Swanworth Quarry permits the acceptance of additional EWC codes, however, these EWC codes will only be accepted into the main quarry and not received into the extension area. The EWC codes permitted to be accepted into the main quarry can be found in Swanworth Quarry's Management Plan and Waste Acceptance Procedure.

Table 2.1: EWC codes accepted for the purpose of use in the quarry restoration for the lateral extension to the site

EWC code	Description
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07[3]
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete

[3] Please note that the intended waste that will be accepted under the EWC code 01 04 13, is offcuts of primary stone from Suttles own stone cutting works, which will be used as an inert waste for infilling. Only natural stone excavated from the ground is cut e.g. no manmade composite materials or similar are sawn.

EWC code	Description
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11

2.2 Overview of waste processing, dust and other emission controls

The below sections provide details on the site, including information on site design, site operations, storage locations, plant on site and dust control measures.

2.2.1 Site description and design

The site entrance and main haul road into Swanworth Quarry are surfaced with asphalt. The waste storage and treatment areas are constructed of compacted aggregate materials. There are no impermeable surfaces constructed, with the exception of a vehicle wash down area, which is located in the existing permitted area (see figure 1). The vehicle wash down area has a concrete pad which is served by an oil interceptor.

Access to the extension area will be gained via Swanworth Quarry's existing main haul road with a new vehicle bridge being constructed across the Coombe Valley and a cutting through the southern-most field to the extension area.

The site has been designed for the purpose of handling, storing and processing inert waste materials, to meet the requirements set out by the planning permission and anticipated conditions of the environmental permit.

2.2.2 Waste processing

Mineral extraction (limestone) and the subsequent proposed infill within the extension is planned to be undertaken in three main phases, seeking to return ground levels to prevailing (predevelopment) elevations. The infill will be placed concurrent with extraction, over three phases of operation, the below section describes where material will be stored during these operations:

Phase 1

- Topsoil, subsoil and overburden will be separately stripped from the extraction area and transported by dump truck to the northern part of the existing main quarry for storage.
- Following the removal of soils and overburden from Phase 1 limestone extraction will progress over two benches gradually from the access cutting in a westerly and northerly direction.

Phase 2

- Towards the end of limestone extraction in Phase 1 soils and overburden will be stripped from Phase 2 and used in the restoration of Phase 1.

- Limestone extraction will progress from Phase 1 into Phase 2 in a northerly direction.

Phase 3

- Towards the end of limestone extraction in Phase 2, soils and overburden will be stripped from Phase 3 and used to create an additional shallow screen bank to the north and to continue the restoration from Phase 1 into Phase 2. The northerly screen bank will have a height of 3 metres.
- Limestone extraction will progress from Phase 2 into Phase 3 in a northerly direction.
- Quarry waste stone and imported inert infill material will be used in the restoration of the Phase 2 area. Any surplus materials will be stored in the existing main quarry area.

Please see Appendix A for an overview of the planned phasing of the extension area.

There will be limits on the activities and the treatment in the Swanworth Quarry extension area. The treatment will consist only of manual sorting and separation of waste into different categories for reuse. No screening activities will occur in the extension area, all screening activities will be confined to the site's existing permitted area (see figure 1).

2.2.3 Dust control

The below section details activities and practices which are applied across Swanworth Quarry. This information provides context and has been included to demonstrate the good practices, that are already in place it the site's main quarry, and the practices that will be implemented in the extension area, to control dust emissions across Swanworth Quarry.

Soil stripping

Material removed as part of the soil stripping operations will be handled in a manner to minimise dust generation. Any soil storage mounds will be seeded and watered, as soon as is practicable; in keeping with the current site's good working practices, to minimise the effects of wind blow.

Site vehicle movements will be limited to a speed of 10mph. These vehicles will be loaded evenly to avoid any spillages.

Limestone extraction and transportation operations

The extraction of limestone will be conducted with a tracked excavator and will be transported to the fixed primary crusher by two articulated dump trucks. The material is then screened or crushed as required within the mineral processing plant.

Consistent with the existing planning controls, dust suppression measures will be implemented to reduce the potential for dust emission from the site.

The drop height from the excavator bucket to the dump truck and from the dump truck to the feed hopper will be minimised.

Dust suppression with the use of foam additive to the primary crusher and sprinkler systems will continue to be implemented as required to mitigate dust generation.

Internal haul roads consist of compacted material and are regularly maintained by grading in order to minimise dust generation.

Haulage of material off site

The main source of potential dust emissions will be the movement of road lorries. All lorries leaving the site will be sheeted. The approximately 400m long site access road is hard, asphalt, surfaced, which helps minimise dust generation.

A road sweeper and a sprinkler system will be used, as required, on the site access road to suppress and remove any fine particles that can become airborne. Continued good maintenance and housekeeping of haul road surfaces at all times will reduce the potential for dust emissions.

Restoration activities

Any soils handled as part of restoration activities will be managed in accordance with the approved restoration scheme and where relevant watered and seeded as soon as is practicable in order to minimise the potential for dust generation.

2.3 Mobile plant and equipment

The mobile and fixed plant required for quarrying and subsequent deposit operations at the site have the potential to generate dust and other airborne pollutants in the immediate vicinity of their operations. The likelihood of problems caused by such pollutants will be largely influenced by the effectiveness of onsite environmental controls.

Nitrogen dioxide gas is a by-product of internal combustion engines and the site uses several items of plant with internal combustion engines. Table 2.2 lists the type, mobile and emission ratings for the mobile plant and equipment used on site.

Table 2.2: Type, mobile and emission ratings for the mobile plant and equipment used on site

Description	Make	Model	Emission rating
Bulldozer	Komatsu	D65pxi	Tier 4
Excavator	Volvo	EC300	Tier 4f
Second excavator	Komatsu	PC490	Tier 4
Dump trucks	Volvo	A30G	Tier 4f
Loading shovels (x 2)	Volvo	L120, L90	Tier 4f
Screener	McCloskey	R105	Tier 4

When using plant on site, all staff are trained to switch off plant when not in use to prevent anti-idling and instructed to avoid the double handling of material, wherever possible, to reduce the time the vehicles are being used and the potential for dust generation.

All plant is regularly maintained in accordance with the manufacturer recommendations. The Site Manager also ensures the programme of Planned Preventative Maintenance (PPM) is implemented effectively to maintain plant on site.

If plant needs replacing, wherever possible and financially viable, plant with the lowest emission standard are prioritised for purchase.

3 Dust and Particulate (PM_{10}) Management

3.1 Responsibility for implementation of the DEMP

The Site Manager is responsible for the DEMP at Suttle Stone Quarries, with the Site Supervisor as a deputy. The DEMP is reviewed annually or following the receipt of any substantiated dust complaints.

The operator has implemented a training programme for all employees to ensure that they are fully conversant with their responsibilities for compliance with the requirements of the internal EMS, work instructions, procedures and the permit (inclusive of this DEMP). All operatives are sufficiently trained at the start of their employment. Training needs are established individually for each employee and records of training are kept. The respective line managers are responsible for identifying training needs with respect to awareness of and compliance with new or emerging legislation, as well as arranging refresher training.

3.2 Sources and control of fugitive dust/particulate emissions

3.2.1 Sources

The following operations at the site have the potential to produce dust and particulates:

- Haulage of material on/off site
  - Vehicles entering and/or leaving the site with mud on wheels, and tracking dust on to or off the site
  - Debris falling off lorries which arrive uncovered
  - Vehicles and plant moving around the site kicking up dust
  - Loading of vehicles with waste materials
- Unloading/tipping of incoming waste vehicles
- Soil stripping
  - Movement and processing of soils generating dust
- Limestone extraction and transportation
  - Crushing and screening of material
  - Transportation and movement of material
- Restoration activities
  - Handling of soils generating dust
- Particulate emissions from the exhaust of vehicles/plant/machinery on site
- Emissions generated from Swanworth Quarry existing permitted activities in the main quarry (EPR/CB3030RQ).

Table 3.1: Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Mud	Tracking dust on wheels and vehicles, then mud dropping of when wheels/vehicles are dry	Please see Table 1.1	Visual soiling, also consequent resuspension as airborne particulates	• Ensure any mud arising from activities on site is cleared up. Ensure vehicles are washed regularly. • Ensure any soiled vehicles are washed down before leaving the site. • Inspect vehicle routes regularly.

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
				• A road sweeper is contracted to visit the site once a week, this frequency can be increased if required. Internal roads will be swept regularly as required to reduce the likelihood of dust becoming airborne. • Sprinkler systems will be used as required to dampen down the site access road.
Debris	Falling off vehicles hauling waste	Please see Table 1.1	Visual soiling, also consequent resuspension as airborne particulates	• All vehicles entering/leaving the site will be transported in an enclosed or sheeted vehicle to prevent waste/materials being blown from them. • Vehicles will be loaded evenly to avoid any spillages. • Inspect vehicle routes regularly. • A road sweeper is contracted to visit the site once a week, this frequency can be increased if required. Internal roads will be swept regularly as required to reduce the likelihood of dust becoming airborne. • Sprinkler systems will be used as required to dampen down the site access road.
Unloading/ loading of wastes in the open	Atmospheric dispersion	Please see Table 1.1	Visual soiling and airborne particulates	• Drop heights to be minimised when handling waste to minimise dust. • Ensure there is equipment available for damping down dusty wastes and haul roads where required e.g. the sprinkler system.
Processing of soils/crushing and screening of materials	Atmospheric dispersion	Please see Table 1.1	Visual soiling and airborne particulates	• Drop heights to be minimised when handling waste to minimise dust. • Ensure there is equipment available for damping down dusty wastes and haul roads where required e.g. sprinkler system. • Dust suppression with the use of foam additive to the primary crusher and sprinkler systems will be implemented as required to mitigate dust generation. • Bunds and overburden stores to be seeded and watered as soon as is practicable to minimise the effects of wind blow. • Processing plant below surrounding ground level.
Vehicle exhaust emissions	Atmospheric dispersion	Please see Table 1.1	Airborne particulates	• Regulatory controls and best-practice measures to minimise source strength. • Mobile plant exhausts and cooling fans to point away from ground to prevent dust mobilisation. • Maintain PPM programme.
Non-road going machinery exhaust emissions	Atmospheric dispersion	Please see Table 1.1	Airborne particulates	• Regulatory controls and best-practice measures to minimise source strength. • Maintain PPM programme.

Table 3.2: Measures that will be used on site to control dust/particulates (PM10) and other emission

Abatement measure	Description/ effect	Overall consideration and implementation	Trigger for implementation
Preventative Measures			
Pre-acceptance criteria	Minimising the potential for dusty waste to arrive on site.	No wastes comprising solely of dusts are accepted into site.	In use at all times during site operations. Investigation carried out if waste arrives dustier than expected.
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	Customer/ hauliers notified of sheeting vehicle requirements.	In use at all times during site operations.
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site	Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only purchase clean burn road vehicles and non-road going mobile machinery. Enforcement of a speed limit may reduce re-suspension of particulates by vehicle wheels.	Speed limit of 10mph set on the access road to the quarry, this is clearly communicated to all drivers on site and stated in the site's management system.	In use at all times during site operations.
Minimising drop heights for waste	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds.	Drop heights to be minimised when handling waste to minimise dust i.e. the drop height from the excavator bucket to the dump truck and from the dump truck to the feed hopper will be minimised.	In use at all times during site operations.
Good house keeping	All areas of site to be cleaned regularly; Site Manager to oversee regular cleaning schedule, all staff trained on importance of good housekeeping and site cleanliness.	All areas of site to be cleaned regularly; Site Manager to oversee regular cleaning schedule, all staff trained on importance of good housekeeping and site cleanliness. Good maintenance and housekeeping of haul road surfaces at all times will reduce the potential for dust emission.	In use at all times during site operations.
Cleaning of vehicles on exit	Remove dirt, dust and particulates from the lower parts of vehicles.	Ensure there is the equipment to enable the vehicles, where applicable, to be washed down.	In use (when required) at all times during site operations.
Easy to clean concrete impermeable surfaces	Creating an easy to clean surface on site haul roads to reduce the amount of dust and particulate generated.	The approximately 400m long site access road is hard surfaced, which helps minimise dust generation. Continued maintenance and housekeeping of haul road surfaces at all times	In use (when required) at all times during site operations.

Abatement measure	Description/ effect	Overall consideration and implementation	Trigger for implementation
		will reduce the potential for dust emission.	
Remedial Measures			
On-site sweeping	Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles. Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.	Road sweeper to be used on site access road. Internal roads will be swept regularly (as a minimum once a week) as required to reduce the likelihood of dust becoming airborne.	Ad hoc – as and when required. Regular inspections for dust and debris are undertaken – this will inform the need for the road sweeper/sweeping.
Water suppression	Damping down of site areas using sprinkler systems can reduce dust and particulate re-suspension.	Ensure there is equipment available for damping down dusty wastes and haul roads where required e.g. sprinkler system.	Ad hoc – as and when required. Regular inspections for dust and debris are undertaken – this will inform the need for the damping down of the road.
Foam Suppression	Use of foam additives can reduce dust and particulate re-suspension.	Dust suppression with the use of foam additive to the primary crusher and sprinkler systems will be implemented as required to mitigate dust generation.	Ad hoc – as and when required. Processing of dusty waste will trigger the use of the foam additive in the primary crusher.

3.3 Other considerations

3.3.1 Water usage/ availability

Swanworth Quarry gets water for the road sweeper, sprinkler and any washing equipment from the mains supply.

3.3.2 In the event of a drought

In the event of a drought, or other causes of unavailability of mains water, the site has storage tanks that hold 20m^3 of water, this would be used to maintain sprinklers and other key water usages on site until the mains water supply resumed.

3.4 Enclosure of waste processing and storage areas

Due to the nature of the site, all site processing and operations are outside. The storage of materials is outside alongside the waste products produced.

3.5 Visual dust monitoring

The authorisation for the quarrying process requires that checks of the process shall be made to ensure that the operation is substantially free from visible emissions of dust. Suttles is obliged to control and minimise the escape of dust from Swanworth Quarry. This applies to all site operations, including the unloading and loading of waste materials for on-site or off-site transport, the permitted activities in the main quarry (EPR/CB3030RQ) and the proposed activities in the extension area of the site e.g. soil stripping, movement and screening of inert waste materials and restoration activities.

The Site Manager will arrange for the visual assessment of any process emissions. Visual assessments will be carried out frequently and at least once a day during the morning or afternoon when the plant is under normal operation. Visual assessments will also follow the receipt of any complaint related to dust received. The results of visual assessments shall be recorded in the site diary as:

- Slight visible emission: a haze of dust
- Intermediate visible emission: a cloud of dust but not so dense as to obscure the outline of the affected plant
- Dense visible emission: a cloud of dust so dense that it obscures the whole or part of the outline of the affected plan

All abnormal emissions shall be brought to the attention of the Site Manager or his designated deputy who will respond as appropriate. As a guide the Site Manager may instruct that:

- Slight abnormal emissions in the vicinity of the source plant: the plant may continue to run until the end of the shift when an investigation and maintenance or repairs will be carried out
- Intermediate and dense emissions from the source plant that do not go beyond the boundary require:
  - an immediate investigation to be undertaken
  - actions recorded to contain the problem

All site personnel shall be trained as to the potential sources and effective mitigation of dust. Regular visual inspections will be conducted within the site and on the local road network by the site personnel, as deemed necessary and especially during dry windy conditions to ensure that any dust sources are identified and dealt with promptly.

Actions taken if dust/emissions are detected outside of the site's boundary:

- All abnormal emissions travelling beyond the site boundary require: an immediate investigation to be undertaken, with actions recorded.
- The Site Manager will assess site activities and the nature of the waste being handled when the abnormal emission is detected.
- If the source cannot be ascertained with 100% confidence, the Site Manager on duty will suspends the likely dust/particulate generating activities, i.e. the screening or crushing activity.
- If the source is within the site's control, the Site Manager will:
  a. Investigate the source of the dust/particulates to prevent a re-occurrence.
  b. Suspending operations which are not being conducted using best-practice controls as set out in this plan.
  c. Additional use of the dust abatement measures i.e. use of foam or water suppressants.
  d. Issue immediate maintenance or repairs (if required).
  e. If repairs are completed and the plant restarted, visual monitoring will be carried out for 15 minutes to ensure that emissions are at an acceptable level.
  f. Records of all investigation / corrective action taken shall be kept in the site diary.

In all cases, any new "lessons learnt" from the investigations are considered by the company directors and implemented into this plan, to mitigate against reoccurrence.

The Site Manager will periodically review emission records in the site diary to identify any trends. Where there is repeated evidence of dust being deposited off-site the Manager shall arrange for additional monitoring to identify the source. The monitoring shall be in accordance

with British Standard 1747 Part 1, where appropriate, or by a method agreed with the Local Authority.

4 Particulate Matter Monitoring

This section discusses the site's procedures for monitoring and reporting data on particulate matter. Please note, as the site is not within an Air Quality Management Area. monthly monitoring and fixed monitoring equipment is not required and not stipulated within the site's planning permission.

4.1 Monitoring location

Not required - the site is not in an Air Quality Management Area.

To support the planning application for the extension to the site, the installation of dust deposition monitors were placed at sensitive receptors sites to obtain the baseline environment dust fall rates; this was conducted in August 2019.

The impact on air quality from potential dust emissions is expected to be negligible for all receptors except for Afflington Lookout Barn (slight adverse effect), however, section 2.2.3 and 3.2.1 provide mitigations to control this effect. More information on the monitoring can be found in the Air Quality Assessment produced for the extension area[1].

4.2 Operation of the PM monitoring equipment

Not required - the site is not in an Air Quality Management Area.

4.3 Quality assurance/quality control and record keeping

Details of any dust monitoring undertaken will be kept on site and recorded in the site diary.

4.4 Equipment and data management

Not required - the site is not in an Air Quality Management Area.

4.5 Reporting of data

Information is provided to the Environment Agency if there is a dust complaint, please see section 5.3 and Appendix B for an example of the information that will be provided.

4.6 Additional detailed monthly reporting

Not required - the site is not in an Air Quality Management Area.

5 Reporting and Complaints Response

5.1 Engagement with the community

Community engagement is key to the site's operations and local residents will be able to contact the site offices directly should they wish to discuss any concerns. Additionally, the site also holds annual liaison meetings, at which the local parish council and local residents attend.

The continued operation of Swanworth Quarry is expected to have positive socio-economic effects on local communities generated from the continuation of employment and financial stimuli injected into the local economy by means such as using local suppliers.

The operator has a positive relationship with the local community and the current site is at present used for educational purposes, showing that there is already a beneficial use, which could be enhanced when restoration is complete. As an educational resource the current site has been used by universities as part of the curriculum activities, and as a visit for geological societies.

5.2 Reporting of complaints

The Site Manager shall inform the Environment Agency of the complaint as soon as it is practicable to do so.

5.3 Management responsibilities

Any external complaint about dust shall be recorded on the complaint form (see Appendix B) and in the site diary. The Site Manager shall investigate the possible cause of every complaint and take remedial action if appropriate. If the dust leading to the complaint has been caused by a continuing operation, additional surveys may be required to confirm the degree of impact upon the receptor and to establish if the site continues to operate within the conditions of the planning permission. The Site Manager will make any recommendations for further dust emission controls, where appropriate.

5.4 Summary

Suttle Stone Quarries are committed to continuously reduced levels of fugitive dust generated by its operations and is sensitive to the concerns of neighbouring receptors regarding the levels of dust experienced. The site will ensure systems are in place that:

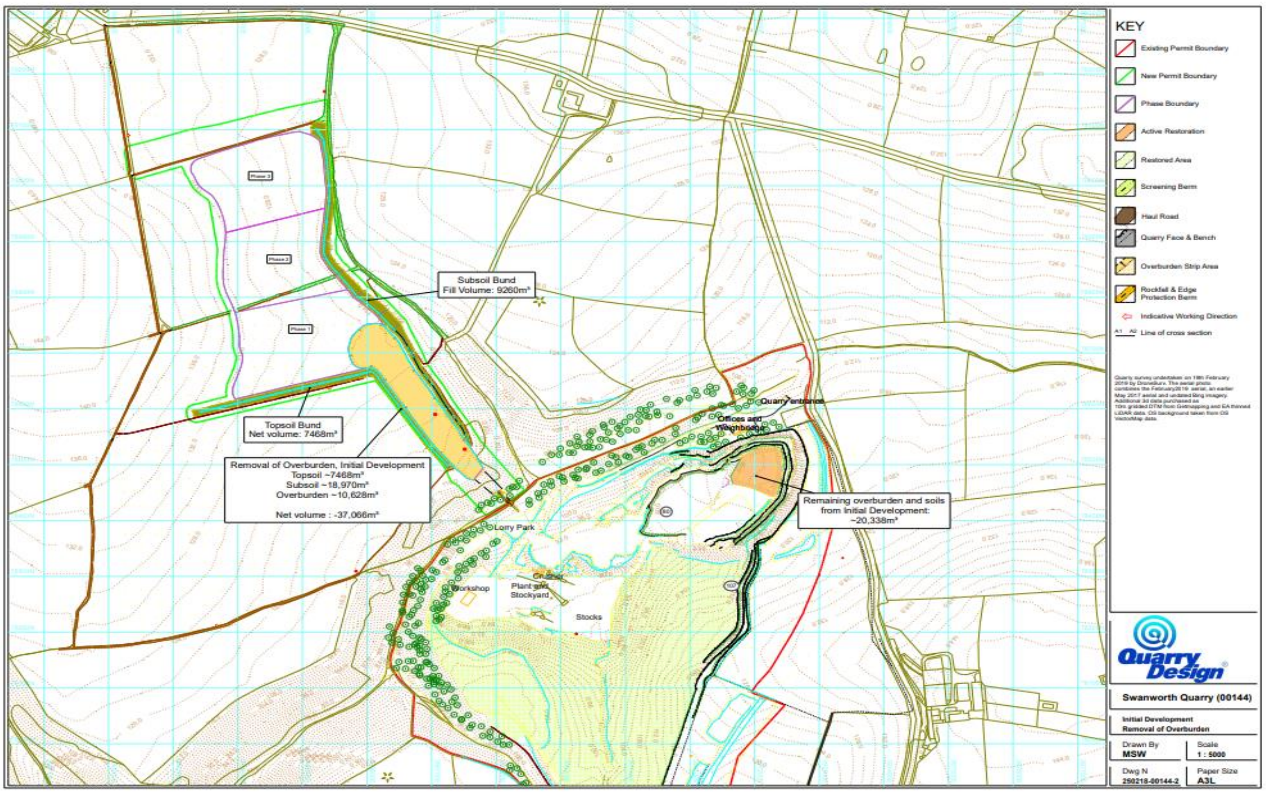
- Control dust at source by implementing good operational practices and through the correct use and maintenance of plant.
- Identify where potential sources of dust are likely to arise at the site.
- Take all appropriate measures to minimise dust produced from the site.
- Take prompt actions to investigate and resolve any dust related incidents, by applying the operational practices listed in this plan.

A. Restoration phasing development plans

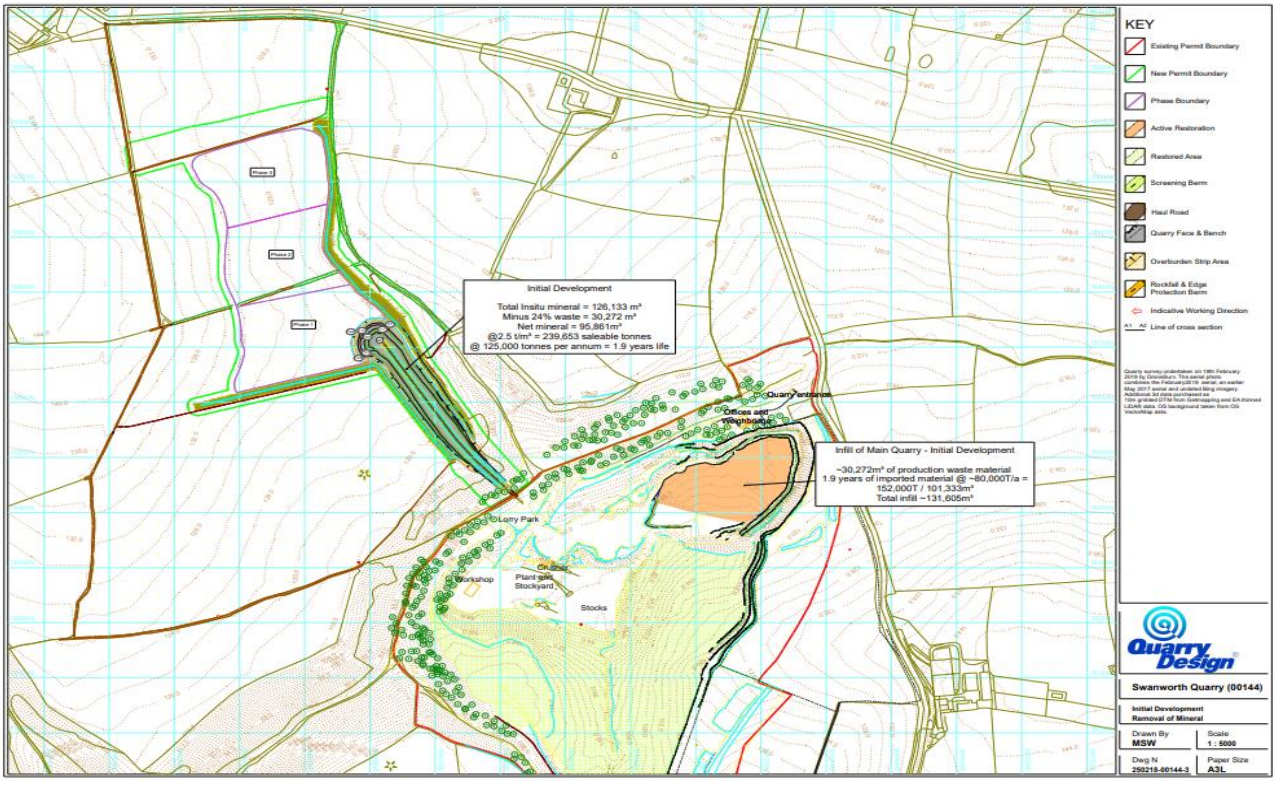
Please note the below drawings and plans are saved images from A3 sized documents, all documents can be sent through in their original form upon request.

A.1 Expected main quarry topography before extension

A.2 Initial development: Removal of overburden

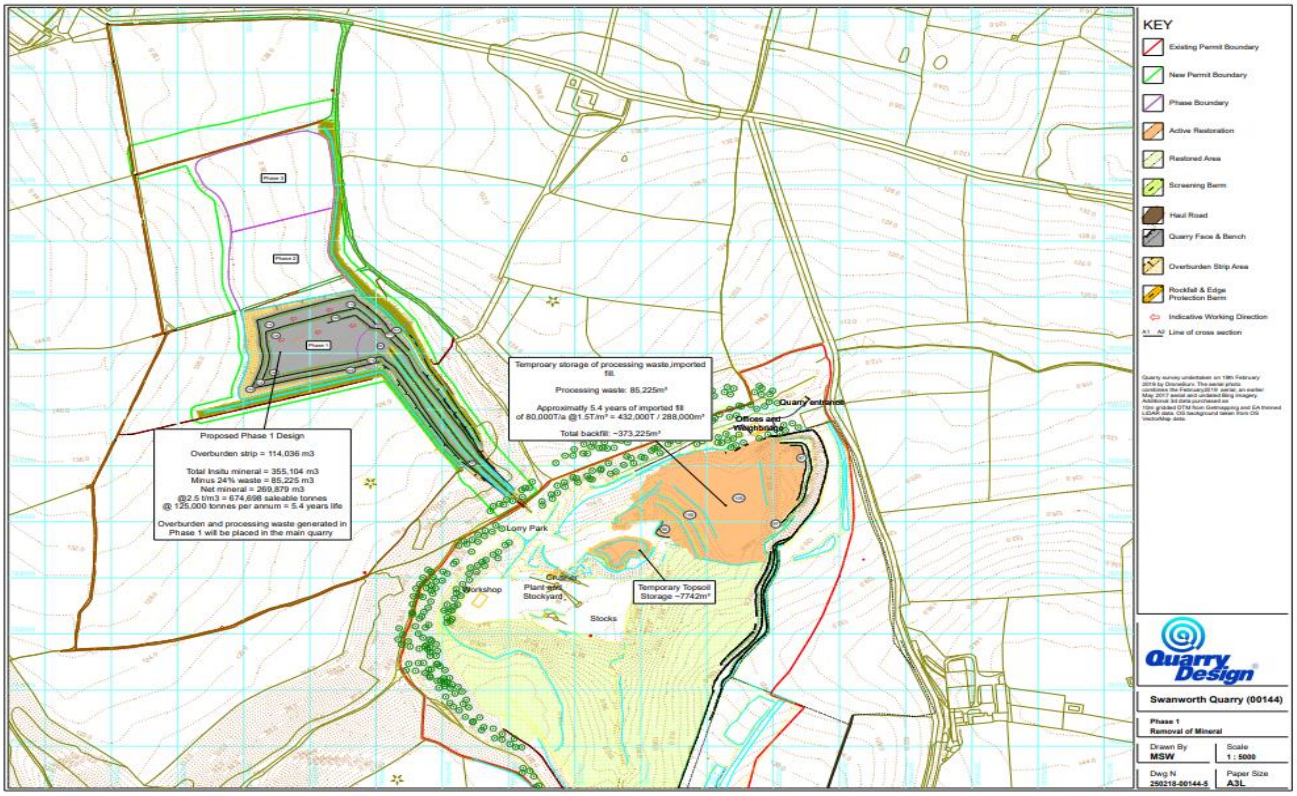


A.3 Initial development: Removal of mineral



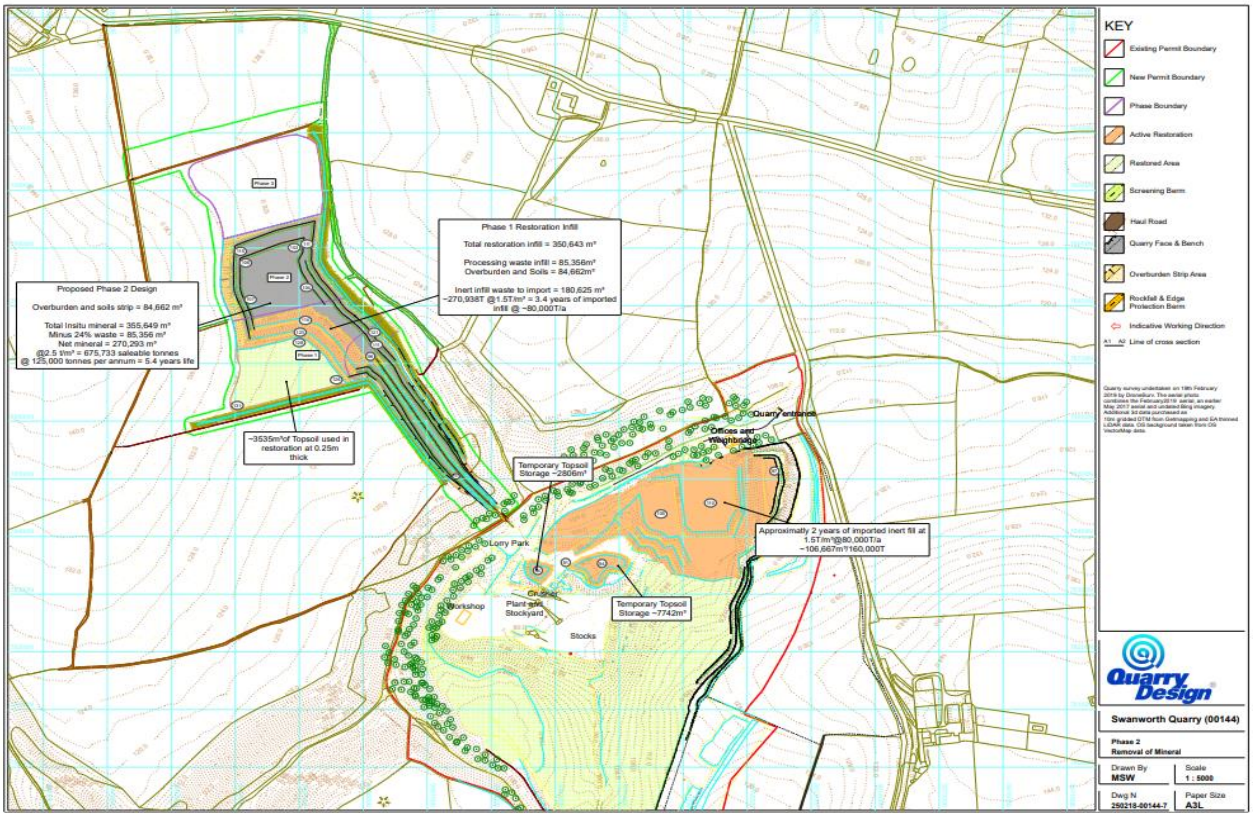
A.4 Phase 1: Removal of overburden

A.5 Phase 1: Removal of mineral

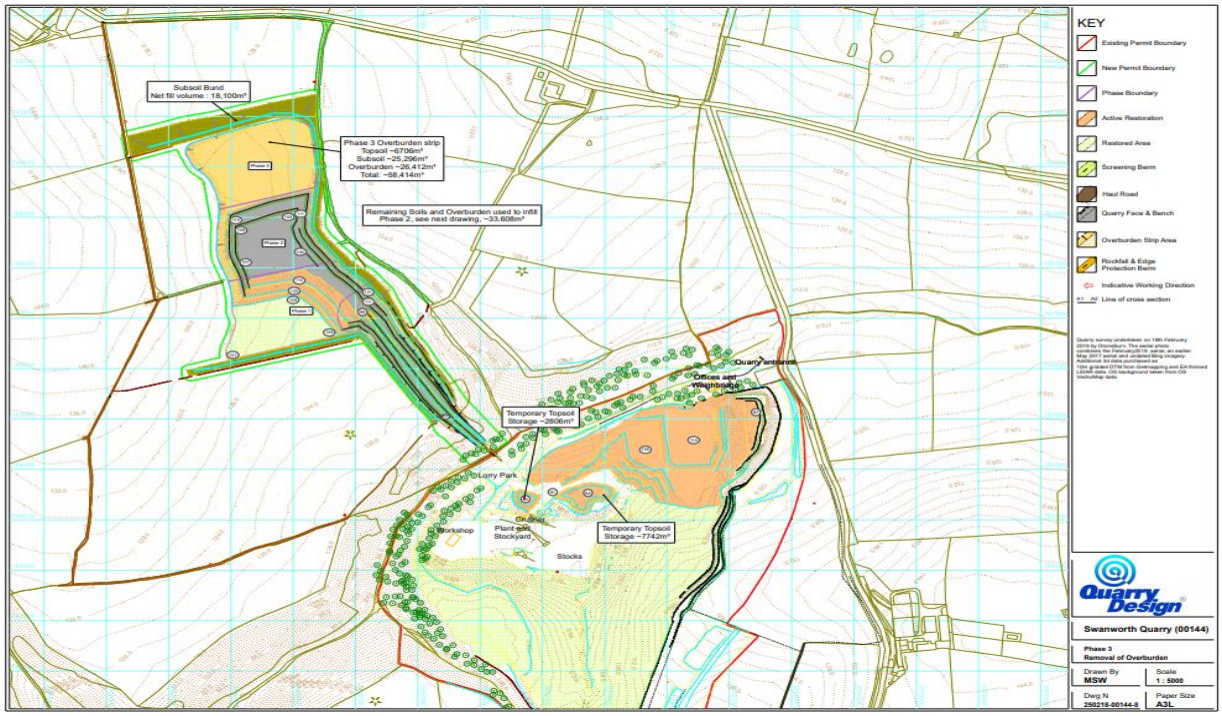


A.6 Phase 2: Removal of overburden

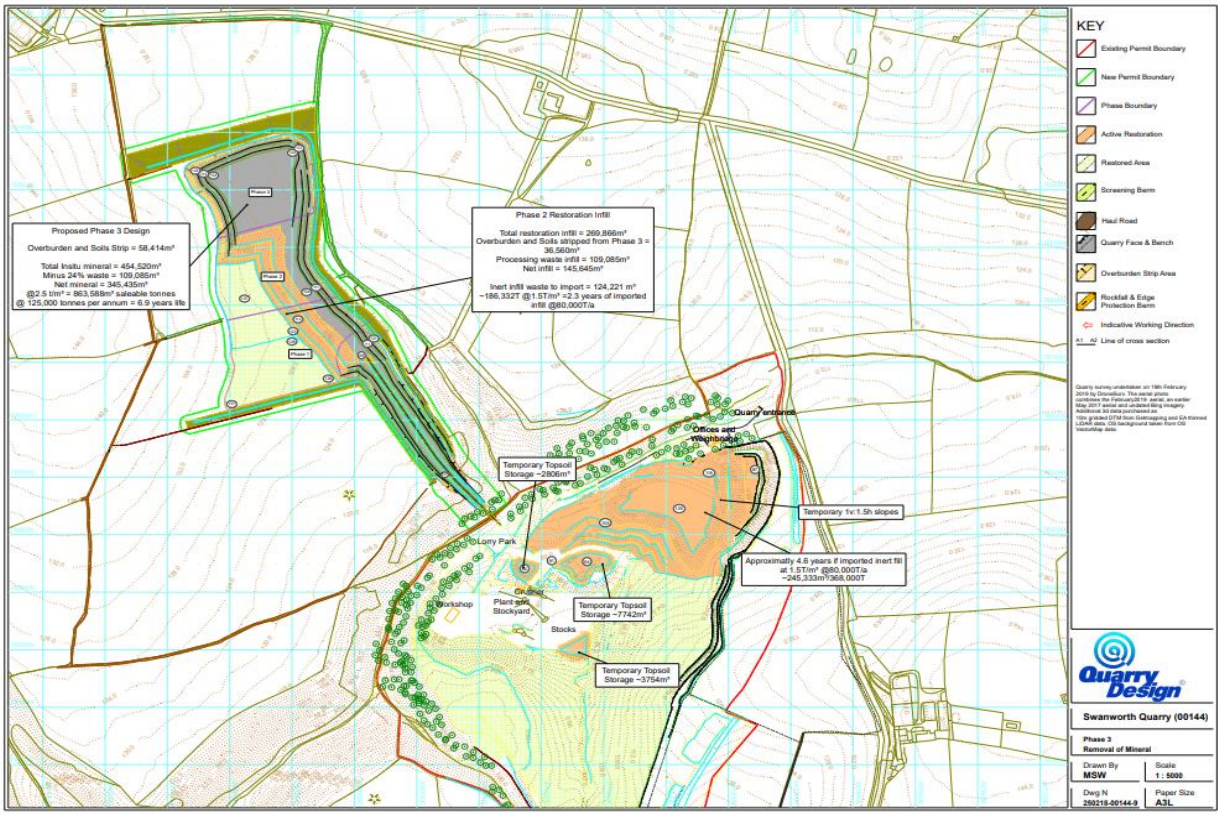
A.7 Phase 2: Removal of mineral



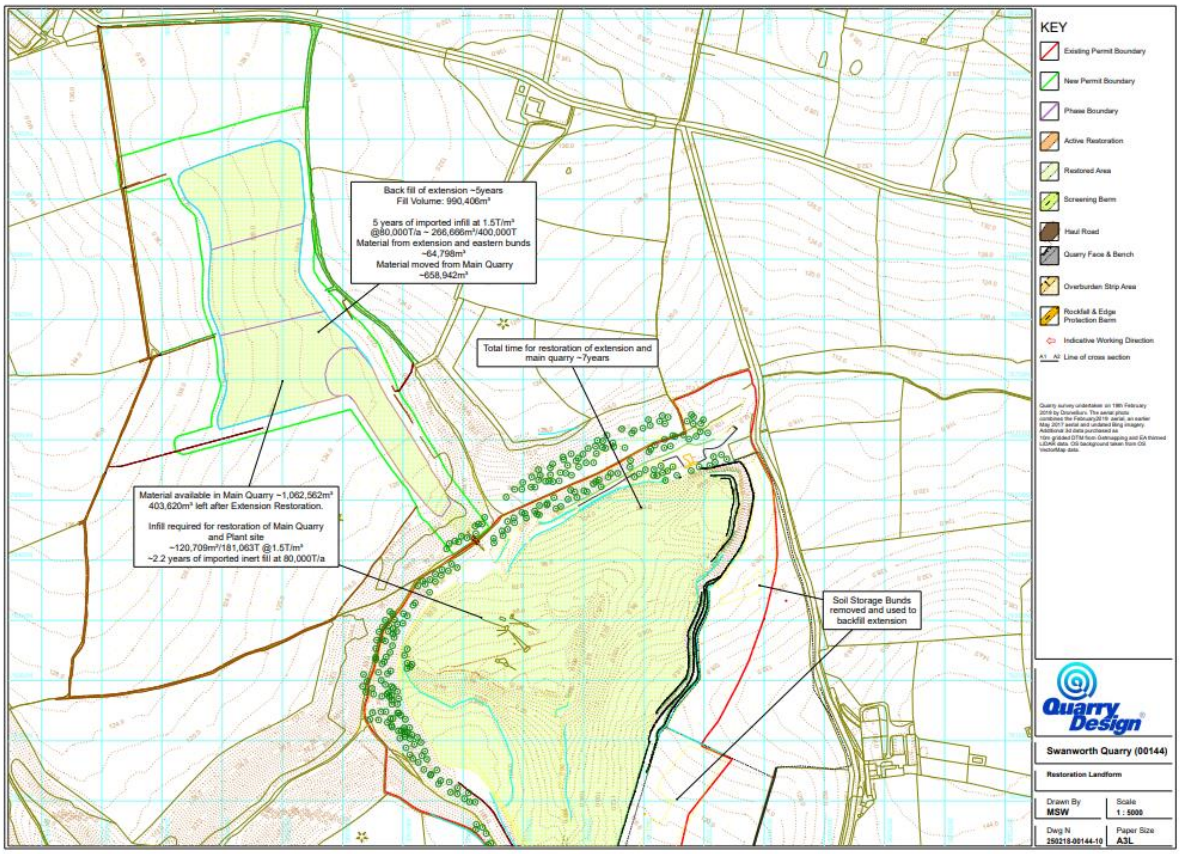
A.8 Phase 3: Removal of overburden



A.9 Phase 3: Removal of mineral



A.10 Restoration landform



B. Dust complaint form

Dust complaints form	
Complainant details	
Name	
Location of complaint	
Contact details	
Details of complaint	
Investigations details	
Investigations carried out by	
Position	
Date and time of investigation	
Weather conditions	
Wind direction and speed	
Investigations findings	
Feedback given to the Environment Agency	
Feedback given to the public	
Date of 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)**