GRS STONE SUPPLIES LIMITED

Wickwar Quarry, Wotton Under Edge

EPR/KB3003LM

Dust Emission Management Plan (DEMP)

Document Ref: 223212/DEMP

February 2025

AA Environmental Limited
Units 4 to 8 Cholswell Court
Shippon
Abingdon
OX13 6HX
T 01235 536042
F 01235 532849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

REPORT FOR:
GRS Stone Supplies Limited
10 Goldsmith Way
Eliot Business Park,
Nuneaton, Wawickshire,
England, CV10 7RJ

Wickwar Landfill
The Downs
Wotton-under-Edge
Wickwar
GL12 8LF

Issue Date	Document Reference
February 2025	223212/DEMP

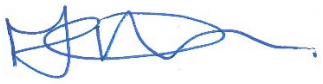
Issued By

……..
Samantha Muir BSc

Reviewed By

……..
Ed Brown BSc (Hons)

Approved By



……...
Matthew Lawman MSc BSc (Hons)

AA Environmental Limited (Registered Office)
Unit 4 to 8
Cholswell Court
Shippon
Abingdon
OX13 6HX

T 01235 536042
F 01235 532849
E info@aae-ltd.co.uk
W www.aae-ltd.co.uk

Company No. 8474322

Table of Revisions

Issue	Date	Description of Changes

Contents

DRAWINGS

APPENDICES

1.0 INTRODUCTION & SCOPE

1.1 This dust emissions management plan (DEMP) sets out how the risk of poor air quality emissions will be managed at the aggregate and soil recycling facility operated GRS Stone Supplies Limited. This assessment is solely for the aggregate and soil recycling facility alone, and not of the Landfill which is covered under a separate document within the management systems.

1.2 The site is located east of The Downs (B4509) within a limestone quarry. The activity is located in the north of the site on top of a partially landfilled area at 55 mAOD platform and is covered under the Environmental Permit (EPR/KB3003LM). This plan forms part of the dust and emissions management systems for the site.

1.3 The purpose of this plan is to:

- minimise the emissions of dust, particulates and NO_2 produced by site activities, as far as is practicable, using appropriate best practice measures; and
- mitigate the potentially adverse impacts of the residual emissions of dust, particulates and NO_2 after all appropriate control measures have been applied with due regard to the sensitivity of the local surroundings.

1.4 This management plan incorporates industry good practice including to ensure the air quality emissions risk remains low during the site's operation. The plan has been developed following the principals set out in the EA dust control guidance, and SPG Mayor of London Guidance and City of London Code of Practice for Deconstruction and Construction Sites[1]. The relevant guidance in these plans relates primarily to construction processes which are consistent with those operated at the manufacturing site and present good industry practice.

1.5 The movement, storage and placement of waste may generate particulates and litter. The sources of emissions and associated controls are described in Section 3 of this plan. The plan sets out the proactive and reactive measures that will be implemented to control the emissions during standard and abnormal operational circumstances. These controls are described in subsequent sections.

1.6 In the event that the implementation of controls fails, corrective actions will be identified and implemented. The Site Manager will be responsible for implementation of the DEMP on site and site operatives will be provided with copies of this plan and trained on its implementation. Additional copies of the latest revision can be found in the site office and welfare area.

1.7 The material recycling processes can generate particulates and litter. The associated controls are described in Section 4 of this plan. The plan sets out the proactive and reactive measures that will be implemented to control the emissions during standard and abnormal operational circumstances. These controls are described in subsequent sections.

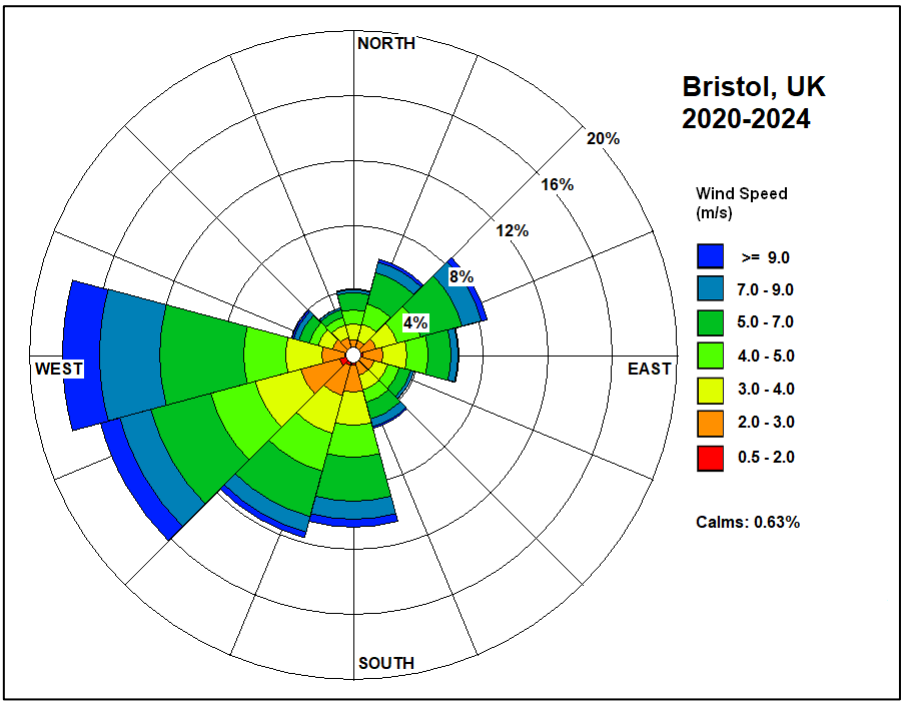
1.8 The scope of this management plan follows the Environment Agency's (EAs) requirements set out in the Dust and Emissions Management template (released October 2018) and Policy SI 8 of the London Plan 2021. Monitoring is in line with EA Guidance M17.

[1] Guidance used as it is the most authoritative for the type of operations at the site.

2.0 SENSITIVE RECEPTORS & BASELINE CONDITIONS

Baseline Conditions

2.1 The frequency of exposure and likelihood of any fugitive emissions on sensitive land uses is determined by the magnitude of release, proximity of receptors and prevailing meteorological conditions. Meteorological wind data for five years, has been acquired. The wind data has been taken from the Met Office Station in Bristol. This data is considered representative of the site. The prevailing wind direction is from the west / south-west quadrant.



2.2 The nearest sensitive receptors downgradient of the predominant wind direction are the residential receptors off Devil's Lane at Newhouse Farm, and off Churchwood Lane at Church Farm. The receptors are over 900 m east of the wash plant. These are considered the most sensitive receptors as a result of the predominant wind direction from the west and south west.

2.3 DEFRA Air Quality Management Areas (AQMAs) data[2] shows the site and the surrounding area is not within an AQMA Boundary.

Sensitive Receptors

2.4 Table 2.1 sets out the potential sensitive receptors to dusts, by either land use or proximity to the operation. The table supplements drawing 223212/D/003A and 003B, which provides a visual guide to the area sensitivity. With the dominant wind direction from the west / south west, the most sensitive receptors are the residential properties at Newhouse Farm and Church Farm, the public highway ('The Downs'), as well as the agricultural fields and any potential livestock.

Table 2.1. Sensitive receptor locations relative to the site boundary of the soil wash plant activity

Land Use Type	Name	Approximate distance from activity boundary
Residential	Newhouse Farm	859 m east
	Church Farm	990 m north east
	Talbot's End	933 m north west
	Littlewood Cottage	888 m north
Industrial	CEMEX Building Products – not considered a receptor.	200 m south east

[2] "Department for Environment, Food and Rural Affairs." *AQMA Interactive Map*, uk air.defra.gov.uk/aqma/maps/. Accessed 18/02/2025

Table 2.1. Sensitive receptor locations relative to the site boundary of the soil wash plant activity		
Land Use Type	**Name**	**Approximate distance from activity boundary**
	Breedon Wickwar Quarry Asphalt and Concrete Plant – not considered a receptor.	294 m south
	Wickwar Quarry (east of The Downs) – not considered a receptor.	449 m east
Environmental	Lake Copse	626 m south west
	Hunts Wood	487 m north
	Brand Wood	543 m north
	Little Wood	717 m north
	Old Plantation	711 m north
	Unnamed woodlands	664 m east 755 m north 867 m north 873 m south
	Priority Habitats	487 m north 543 m north 700 m north 711 m north 717 m north
	Ancient Woodlands	543 m north 717 m north
	Traditional Orchard	833 m west
Agricultural	Fields	34 m north 23 m west 125 m east 457 m south
Surface Waters	Unnamed water course	200 m west 384 m north 419 m south
Other	Listed Buildings in Talbot's end (x2)	958 m north east
	Public Right of Way (PRoW)	343 m south west 416 m north west 682 m north 674 m north west 825 m south 950 m east

Local Dust Contributors

2.5 Table 2.2 sets out the potential dust emitters, by proximity to the soil wash plant activity boundary.

Table 2.2 Potential dust emitter activities within 1 km of the soil wash plant activity			
Company	**Address**	**Type of Business**	**Approximate distance from site boundary to centre of emitter**
GRS Stone Supplies Limited	Wickwar Landfill	Landfill	On site
CEMEX	Wickwar Quarry	Building product manufacturer	200 m south east
Breedon Group	Wickwar Quarry	Building product manufacturer	294 m south
N/A	Various agricultural fields	Agricultural activities	Surrounding area (north, west south)

3.0 OPERATIONS AT WICKWAR LANDFILL SOIL WASH PLANT

Waste Operations

3.1 The operations on site involve treatment and storage of non-hazardous, inert mineral based waste to produce recovered aggregates for onward recovery by manual and wet mechanical segregation, crushing, screening and washing. These processes are undertaken by excavator or within the bespoke soil washing facility. There is a > 100 mm oversize made from the wet processing. The majority of the processing on site is by wet processing therefore the materials are wet and risk of potential fugitive emissions are low.

3.2 The annual throughput is 150,000 tonnes with a maximum storage capacity at any time of 50,000 tonnes. There is a maximum of circa 10,000 tonnes of recovered aggregate in the recovered bays ready for re-use. The waste types to be imported to the site are predominantly from construction and development sector, consisting of non-hazardous and inert mineral based materials. The grain size varies from > 100 mm down to < 63 µm. The more friable lower grain size is present in the feedstock and within the sand and filter cake fractions.

3.3 Table 3.1 sets out the waste streams, waste management activities and the potential for fugitive particulate emissions. The dust risk derives from the finer fraction which can become airborne during dry conditions and without abatement controls. Appendix A has the source pathway receptors for all potential dust activities below.

Table 3.1 Waste streams and description potential for fugitive particulate emissions without mitigation

Description	Processes	Potential for fugitive particulate emissions without mitigation
Haulage and site operation	Import and export of waste.	Possible exhaust emissions and fugitive dusts from loads from vehicles (NOx, PM10 (<10 µm) and Total Suspended Particulates (TSP)).
		Possible: Wind entrainment of dust on operating surface and haul route.
Washing of Inert / Non-Hazardous waste streams	Tipping of waste and temporary storage	Possible: Wind entrainment of dust on operating surface and haul route.
	Loading of material onto hoppers or other vehicles	Possible wind entrainment of lighter waste fraction. As the material is transferred or dropped onto the ground there is the potential for wind entrainment of fines. Exhaust emissions and fugitive dusts from the vehicles in operation.
	Wet or dry screening of Waste. Dry crush/screening of wastes	Mechanical breaking and abrasion of the waste can cause particulates to be emitted. If these become entrained, they can become airborne.
		As the material is transferred on conveyor or dropped onto the ground there is the potential for wind entrainment of fines.
		Exhaust emissions and fugitive dusts from the plant in operation (NOX, PM10 (<10 µm) and Total Suspended Particulates (TSP)).
	Transfer of material and manual segregation into stockpiles	Possible emissions from the movement of plant over the operational area if there is significant build-up of mud and waste.
		Possible emissions during the bulk loading of segregated waste.
Storage of Waste	Storage of material or waste within stockpiles	Possible wind entrainment of waste.

3.4 Dust and emission controls are outlined in Section 4.

Plant and Equipment

3.5 The delivery plant involved are sheeted 8-wheel delivery lorries with an emission rating of Euro 5 and above. The deliveries are with either standard, sheeted tipper lorries, or sheeted skip loaders at a rate per day compliant with planning permission.

3.6 All plant is maintained in line with manufacturer's specification. If plant must be replaced, the replacements will be of the lowest emission standard possible at the time of purchase. There are no generators on site.

Wheel Wash

3.7 There are two wheel washes – one near the main entrance off The Downs, and one near the weighbridge. They are active wheel washes. The wheel wash nozzles, positioned on either side of the HGV, pressure wash debris and dust off the tyres and lower body. These are operational when the wider quarry is operational. The wheel washes are managed by Breedon Group.

3.8 The wheel wash is recycled in a tank located adjacent to the wheel wash. The recycling tank removes silts from the water so that it is recirculated. The recirculation of runoff water reduces the overall water consumption and water demand for wheel washing.

3.9 The access condition is monitoring by Breedon Group. Vehicles which still contain significant trackable debris after using the wheel wash will be redirected to go through the passive and active system again.

3.10 In the event that the wheel washes are operational but fails to remove dirt/debris from an HGV due to excessive dirt and debris, the access is swept.

4.0 DUST & PARTICULATE MANAGEMENT

Sources of Fugitive Particulates and Control Processes

4.1 The potential dusts include fine particulate matter which consist of inhalable fractions (total suspended particulates (<100 µm) and the more dangerous respirable fraction (less than PM_{10}). Such dust types are termed as friable. Friable dusts may occur in hardcore and aggregate waste.

4.2 There will be no point source emissions of air pollutants. Any release will be fugitive. All processing operations and waste storage are screened by design and location within the wider quarry.

4.3 All unloading, loading, storage and waste processing will be completed within the activity boundary. The control measures for dust and particulate management are outlined in Table 4.1.

Table 4.1 Control measures				
Ref	**Abatement Measure**	**Description/Effect**	**Overall Consideration and Implementation**	**Trigger for Implementation**
Preventative Measures				
1	The main site entrance is of impermeable concrete hardstanding. The remainder of the accesses are maintained permeable hardstanding.	• Only one access point from the site to the public road. • Easy visual identification of mud/dust at point of entry /exit. • No mud generated and point of exit / entry from the haul route to the access at The Downs. • Any mud/ dust brought to site on HGVs is easy to clean.	The access / egress is regularly cleaned by a road sweeper to limit risk of dust. The sweeper is managed by the quarry operator. Breedon Group inspect the access / egress with the external road to determine whether there is beginning to be an accumulation of dust/mud on the access.	Excess mud/ dust will be identified in daily visual inspections.
2	Wash plant operations are a wet process.	• The wash plant is a wet process which is unlikely to cause a dust nuisance with the exception of the hopper. • This means all materials have a as produced moisture content. This lasts longer in the sands/clay. • The 10 mm, 20 mm, 40 mm and 75 mm aggregates do not have any friable fraction and are of low dust potential.	The wet processing is inherent in the soil wash plant design.	Implemented at all times.
3	Facility is screened by a minimum of 10 m high quarry wall.	The plant is within the sides of the quarry sheltering from prevailing wind and reduces potential for wind whipping.	This is an inherent design feature.	Implemented at all times.
4	Quarry Fixed wheel wash	Maintenance of vehicles leaving the site reduces the buildup and distribution of fine particles and mud on access points and haul routes. The wheel wash removes debris from the wheels and undercarriage of vehicles. It comprises an active water spray system. It uses the passive action of the tyre movement and jet nozzle sprays.	The wheel wash is located on concrete near the weighbridge. The wheel washes uses water re-circulation to minimize water loss therefore much easily maintained during drier periods. The system can also achieve some level of rainwater harvesting within the winter wetter months.	All HGVs leaving the site must use the wheel washes. Excess mud/ dust will be identified in daily visual inspections. Cleaning of the silt tank and cleaning of the infrastructure is undertaken as per manufacturer's recommendations. HGVs leaving the site and the site internal haul route; as well as the external road will be monitored/inspected to provide visual feedback on effectiveness and use of the wheel wash. The inspection will be by completed by the Quarry Operator.

Table 4.1 Control measures				
Ref	**Abatement Measure**	**Description/Effect**	**Overall Consideration and Implementation**	**Trigger for Implementation**
Preventative Measures				
5	Integrated misting systems on crusher / screener	Dampening of the soil / atmosphere during processing will reduce the amount of particulates released during the activity.	The screener and crusher will be fit with an integrated misting system to allow dampening of the soil / atmosphere during processing. The integrated misting system is connected to an IBC, typically 1 m^3 of water. The IBC water will be fed from the mains water supply and will likely trickle-feed the IBC continuously to keep full.	The integrated misting systems will be operation during the crushing and screening during dry or windy conditions. The site conditions will be assessed during the daily visual inspection. Dry conditions will include periods of drought defined as > 35 °C over 3 days consecutively or no rainfall in 14 days) and high winds (defined as > 25mph on any day).
6	Stockpiles will be at natural angle of repose and compacted at the end of each day.	Stockpiled material will be stockpiled lower than their natural angle of repose, which increases the stability of the stockpile. Increased stability reduces the effect of wind whipping and of material slumping which has the potential to cause sporadic dust clouds.	The angle of repose is the critical angle at which a material can be stockpiled without slumping. The stockpiled material should be compacted using an excavator bucket at the end of each day to reduce the impact of wind and rain against the material.	Always implemented.
7	Water suppression using mobile water bowsers with jet nozzle attachments.	Dampening down of stockpiles, haul routes and during the tipping of waste reduces the suspension and re-suspension of dust and particulates. Dampening down of waste being loaded into the hopper.	This method of dust suppression will be implemented during dry and windy conditions where excessive dust emissions are observed to be leaving the site boundary. Visual observation will be conducted by all employees and noted in the Site Diary.	Implemented during dry, dusty conditions. The site conditions will be assessed during the daily visual inspection. Dry conditions will include periods of drought defined as > 35 °C over 3 days consecutively or no rainfall in 14 days) and high winds (defined as > 25mph on any day). Dry conditions will also include visual observations of dust leaving the site boundary.
8	All delivery lorries or other vehicles will be sheeted.	Vehicles will be sheeted upon arrival and during transit. This prevents the escape of debris, dust and particulate from vehicles as they travel.	Operative responsible for ticket collection will enforce compliance with sheeting/ equivalent dust controls if dust control is inadequate.	This is always implemented with the exception that vehicles will temporarily uncover for visual inspection at the weighbridge or gate, then re-cover for the transit to the designated tipping location. If non-compliance is observed, a strike will be given, which when tallied up to 3 strikes for repeat offenders, the haulier will be contacted and driver banned from site.
9	Drop heights and double handling minimised.	Drop heights and double handling minimised at all times. Minimising drop height and handling will reduce the distance over which debris, dust and particulates disperse by wind.	Operatives who drive front loader and excavator will be briefed on the need to minimize drop heights.	Always implemented.

Table 4.1 Control measures				
Ref	**Abatement Measure**	**Description/Effect**	**Overall Consideration and Implementation**	**Trigger for Implementation**
Preventative Measures				
10	Site wide speed limit set at 10 mph for all HGVs	Minimisation of fugitive emissions from site surfacing/ vehicle wheels/ loads by keeping vehicle speed low. Reduced speed will also minimise the disturbance of any dust, debris or particulates on the haul routes.	All drivers delivering waste will be subject to signage reminders of speed limit, dust controls and by the operator at the ticket office. Driver's under the Operator's primary control will be subject to a site induction and toolbox talks.	Always implemented. If non-compliance is observed, a strike will be given, which when tallied up to 3 strikes for repeat offenders, the haulier will be contacted and driver banned from site.
11	Anti idling policy	Limit the fugitive emissions from vehicles by implementing an anti-idling policy. An anti-idling policy reduces the emissions from a vehicle by limiting emissions to during activities only.	All drivers delivering waste will be subject to reminders of the anti-idling policy by the Operator at the ticket office. Driver's under the Operator's primary control will be subject to a site induction and toolbox talks.	The site operates an anti-idling policy which is implemented at all times. If non-compliance is observed, a strike will be given, which when tallied up to 3 strikes for repeat offenders, the haulier will be contacted and driver banned from site.
12	Visual monitoring inspection	Visual monitoring will be completed daily by nominated site operative, where wind direction, airborne dust, dust soiling and weather conditions will be monitored. The visual monitoring results will be recorded in the Site Diary. These conditions will be monitored using online weather internet sources (Met Office website). Notes of weather conditions off site may also be noted if different from onsite notes. This will inform the need to use additional preventative measures. To note, all staff including site operatives have a duty to check for identifiable or potential dust risk all of the time.	The number of visual inspections will be increased in accordance with the weather conditions and following an emissions incident or complaint. The inspections will be undertaken during normal operating hours, not during breaks. The inspection will include check of concrete surfacing, access point at Longwood Lane, acceptance of loads and tipping/loading activities. The visual monitoring locations are shown in the Monitoring Plan.	At least one visual inspection will be undertaken per location per day. During dry / windy conditions more inspections will be undertaken per day. The observations from the visual inspection should be recorded in the Site Diary. In the event of dust identification, the procedure and actions set out in Section 5 of this DEMP will be implemented.
13	Air emissions awareness training	All staff receive internal air emissions awareness training at site induction and through regular toolbox talks to engender awareness on emissions reduction.	All staff receive internal air emissions awareness training at site induction and through regular toolbox talks	All staff receive internal air emissions awareness training at site induction and through regular toolbox talks
14	Routine servicing of plant and equipment.	All plant and equipment will be routinely serviced in line with manufacturers' guidance.	All plant and equipment will be routinely serviced in line with manufacturers' guidance.	Frequency of servicing will take be undertaken in line with manufacturer's guidance, or as faults or excessive emissions are identified.

Table 4.1 Control measures				
Ref	**Abatement Measure**	**Description/Effect**	**Overall Consideration and Implementation**	**Trigger for Implementation**
Preventative Measures				
15	Plant and equipment will be switched off when not in use	Plant and equipment will be switched off when not in use to reduce excessive emissions.	The importance of this measure will be reinforced during the daily briefing, site induction and during site walkovers (as part of the daily site inspection) by the Site Manager and the site operative nominated for visual dust monitoring.	During site walkovers (as part of the daily site inspection) by the Site Manager and the site operative nominated for visual dust monitoring, operatives will be reminded to switch off their engines if idling is identified. Incidences will be recorded in the visual monitoring checklist and appropriate action taken upon repeat offences.
16	Higher Tier generators used where possible (currently no generators used on site – this measure is only in the event generators are required and not fed by mains electricity supply).	There are currently no generators on site. For permanent infrastructure requiring constant power, in the very unlikely event it is not fed by main electric power, Tier 4 compliant generators will be used. For short term operations, as a minimum, Tier 2 or 3 will be used (where electricity cannot be provided).	Any procurement of generators will be aware of the classification and the need for the more suitable Tier 4 standard, where practically possible.	Any procurement of generators will be aware of the classification and the need for the more suitable Tier 4 standard, where practically possible.
17	Good housekeeping	The waste type does not contain litter and this risk is very low. The site condition will be inspected daily. In the event litter is observed a litter pick will be completed.	The risk of litter from a mineral washing plant is low. The inspection and picking regime will ensure this risk is managed at all times.	Visual Inspections will identify unacceptable conditions and trigger the litter pick in addition to the daily scheduled litter pick. Records of inspections or remedial actions will be made in the site diary.
18	Records of visual site inspections recorded	Records of visual site inspections recorded in Site Diary and on visual monitoring checklist.	Records allow for easy review and identification of dust sources in the event of complaints/ emission incident etc.	Results and checklist of visual inspections are to be filled out and recorded each time.
19	Cease and/or reduce operations during high winds and/or prevailing wind conditions.	Operation during high winds and / or peak prevailing wind conditions would result in the mobilization of dust and particulates in greater proportion than under normal conditions. Ceasing operations during these times would reduce peak pollution events.	This will reduce the dust and particulate pollution in the short term but is not a long-term solution.	This will be implemented as a result of the daily visual inspections by the nominated operative and is dependent on the local weather conditions and proposed activities for the day.

4.4 Water for suppression will be primarily sourced from onsite mains supply source (conservatively assessed as 10 m^3 per day). The on-site lagoon has a capacity of 300 m^3 which will be re-used on site as an additional water source.

4.5 The water use of the wheel wash is an overestimate as the wheel wash re-circulate the water.

4.6 The estimated worst-case water consumption of on-site operations is calculated below. The worst case scenario is likely to be during hot, dry and windy conditions.

Table 4.2 Onsite worst-case water consumption

Dust suppression Activity	Worst Case Water Consumption (per day)
Maintenance (cleaning, washing down)	Estimated at 0.5 m^3
Road Sweeper (managed by Quarry Operator)	Not supplied by GRS. The quarry has lakes that can be used for suppression in the event potable water ceases.
Wheel wash	Not supplied by GRS.
Dust suppression for tipping, loading hopper and dust suppression of haul routes	1,000L water bowser empties x 10 refill = 10 m^3
Total	**10.5**

1. Water consumptions taken from WRAP 'Case Study: Water Efficiency on construction site'.
2. The operating working hours are taken from the Operational Plan. These are conservative and do not include break times.

4.7 Based on the worst-case scenario in Table 4.2, the water capacity at the site can accommodate the GRS operations.

4.8 The total worst-case water consumption is assessed to be 10.5 m^3 per day. The available water from mains supply source is conservatively assessed to be 50 m^3 per day. This does not include any on site contained water sources. Breedon Group are responsible for ensuring the operation of the wheel wash and roadsweeper. In the event of reduced water, Breedon have access to an on-site lagoon which has significant water supply far in excess of what is needed to operate road sweepers and a wheel wash.

4.9 In the event water supply fails, the Operator will reduce all operations and vigilantly monitor the condition of the access and emissions at boundary. In the event dust cannot be controlled the import and processing will be suspended. This would occur in liaison with the Local Authority and Environment Agency.

5.0 FUGITIVE EMISSIONS MONITORING

5.1 A daily site inspection will be undertaken by the Operator including potential sources that day, the control of dusts and the provision of controls. This information will be recorded in the Site Diary. To note, any site operative can report incidents to their line manager and appropriate actions will be taken immediately. The inspection will be undertaken by the Site Manager and/or a nominated site operative who has been given appropriate internal training by Site Manager and/or Technically Competent Manager (TCM), and/or environmental consultant. In the event the Site Manager is not at the site, the On-Duty Manager and/or nominated site operative will be expected to undertake the site inspection. The Site Diary is kept in the site office / welfare unit. Corrective actions are outlined in Section 6 and will be recorded in the Site Diary and effectiveness monitored.

5.2 The visual inspection will be performed on foot, allowing adequate opportunity to identify emission sources. A visual inspection will be performed within the activity boundary and main site entrance which are shown on drawing 223212/D/004A. The Site Manager and/or nominated site operative should observe at each location for a minimum of 2 minutes. The visual monitoring will be undertaken prior to ceasing operations each day. Inspection of static objects (cars, storage containers, plant) will be used to gauge the extent of dust soiling and will be wiped clean so an accurate judgement can be performed on the subsequent inspection. To note, no out of hour visual monitoring provision is deemed necessary given control measures applied.

5.3 Weather conditions (temperature, precipitation and wind speed/direction) will be recorded in the Site Diary using a value obtained from on-site weather station or from internet source daily (Met Office website). After completion of the inspection, the inspected wind directions will be compared against the desktop inspection. The comparison will be for information only.

5.4 Visual inspections will be undertaken daily and increased during dry / windy conditions to at least 3 daily inspections. One of the checks will be before cessation of works each day. The inspections will be undertaken during normal operating hours, not during breaks. The inspections will include check of impermeable hardstanding, acceptance of loads, crushing / screening and tipping/loading activities. If found to be ineffective (e.g. recurring identification of dust sources on site, poorly filled out forms), the methodology and frequency of the monitoring will be reviewed, revised and briefings will be implemented. This is the responsibility of the Site Manager.

5.5 The daily inspections will have a trigger threshold of visual dust at landfill void boundary. Visual assessment will be visible dust (in plume form or separated). This trigger threshold is an internal site action threshold only and not a compliance threshold. There is no severity to visual dust: if it is seen, the response procedure (set out in section 5.6 to 5.9 below) must be implemented.

5.6 In the unlikely event this threshold is breached, the Site Manager or nominated site operative will notify the Site Team and the response procedure will be initiated. The Site Manager is responsible for the implementation of the incident response procedure. The response procedure actions are set out below. When triggered, the Site Manager and/or nominated site operative will assess the operations, waste type being handled and deliveries immediately prior to the alarm being activated;

- If the source cannot be ascertained with certainty, the Site Team will temporarily cease the most likely operation;
- If the source is within the site's control, the Site Team will take appropriate action in terms of dust/particulate abatement to ensure further observations do not encounter the same emissions for a similar activity. Actions will include:
  - Review of the activity's dust control measures;
  - Increased frequency of the existing control measures; and
  - Temporarily suspending likely works until suitable abatement can be introduced.
- If an effective control measure cannot be identified and the internal trigger level is identified again within 30 minutes of the first identification raised; and the wind direction indicates it could be from the site; the source activity will be temporarily suspended. The activity will not resume until sufficient controls have been achieved (i.e. no visible identification). Visual inspection frequency will be every half an hour during the response procedure, until incident is closed out.

- If there are more than three incidents within a month, further targeted quantitative dust monitoring will be undertaken to establish source and effective control measures. Details of the quantitative monitoring is set out in section 5.7.

5.7 Quantitative monitoring will be undertaken within 5 working days (this covers consultant lead in times and procurement) of when the final of three incidents is identified. The quantitative monitoring will be one of the following and will be in accordance with the standard set out in M8 EA guidance:

- Pumped (active) sampling of PM10 onto filter paper; Gravimetric analysis; or
- Light-scattering optical particle counter

5.8 The monitor will be set up in accordance with supplier recommendations and environmental consultant's procedures. The focus of the monitoring will be on determining the source activities and measurements will be collated within 10 m, within 30 m and at boundary in upwind and downwind locations. This will only be undertaken in dry conditions (to recreate similar conditions to the breaches and to preserve integrity of the equipment). Monitoring will also be undertaken at specific receptors to account for any complaints/concerns.

5.9 The monitoring equipment and consultant will be carried out under MCERTS accreditation. The quantitative dust monitoring PM10 threshold will be 75 µg/m^3 over a 5-minute period average. If the quantitative action threshold is exceeded; and the wind direction indicates it could be from the site; the site will identify and cease the likely source operation until measured PM10 concentrations drop below the action threshold for a 30-minute period.

5.10 The internal action observation exceedance will be logged in the Site Diary and a report of the exceedance and corrective action response to the local EA officer via email within 1 week. To note, these are internal identifications of dust on site. Any exceedance which is not from the site but from an adjacent third-party activity, will be noted in the Site Diary.

5.11 All complaints will be logged and dealt with appropriately in accordance with the Operator's complaint procedure (shown in Appendix B). Operations and additional controls are in accordance with Appendix B.

5.12 All monitoring data will be made available to the Local Authority and Environment Agency, upon request or as specified within the Environmental Permit. This will include any reporting or notification response or contextual information regarding the monitoring data. This will be undertaken within 10 working days of when the monitoring data is issued.

Controls in the Event of Abnormal Fugitive Emissions

5.13 In the event that abnormal fugitive particulate emissions (including during accident, emergencies or adverse weather conditions) are identified during site inspections the following controls should be applied:

- Take immediate action to cease operations;
- Investigate the incident;
- Record the incident and the remedial site action in the site diary; and
- The demp will be updated accordingly and issued to the ea for review.

5.14 Remedial actions are dependent on the source but may include, but not limited to:

- Increase the frequency of road sweeping along the operational hardstanding and public roads;
- Deploy more misting systems, including manual hosing down, specifically targeting certain locations;
- Limit activities to fewer hours each day (in addition to the standard controls being implemented);
- Stop accepting waste types which are likely to have more friable dust potential; and
- Remove the dusty waste from site under dampened conditions immediately (under suppression systems);
- Consider sheeting or removing targeted stockpiles.

5.15 In periods of drought (defined as > 35 °C over 3 days consecutively or no rainfall in 14 days) and high winds (defined as > 25mph on any day), operations will be limited in the following ways:

- Limit activities to fewer hours each day;
- Limit the number of activities at any one time;
- Wet down loads and stockpiles;
- Limit the number of loads accepted proportional to the reduction in activities;
- Deploy more misting systems, specifically targeting tipping and loading activities, including manual hosing down of stockpiles; or
- If no limited or no water is available, the Operator will operate in accordance with section 4.8 of this DEMP.

5.16 In the event that these controls do not resolve fugitive particulate emissions at the site, key source activities will be suspended until suitable arrestment systems are implemented. These systems will be implemented in agreement with the Local Authority and the EA. The systems may include permanent use of remedial actions or alternative measures, as agreed. In the event that the implemented systems change, the DEMP will be reviewed and amended accordingly.

6.0 DEMP MANAGEMENT, TRAINING & RESPONSIBILITIES

Management Responsibilities

6.1 The staff member responsible for implementation, updating and review of this document is the site manager. The site manager is given appropriate training regarding this document upon induction. Upon each document revision and review by site manager, a final review of the document and evaluation of training will be undertaken by senior management. Site Managers are outlined below and one will always be on site and on call.

Table 6.1 Site Management

Name	Position
John Barcham	Operations Director
Michelle Down	Environmental Compliance Manager
Bryan Jeynes	Technically Competent Person

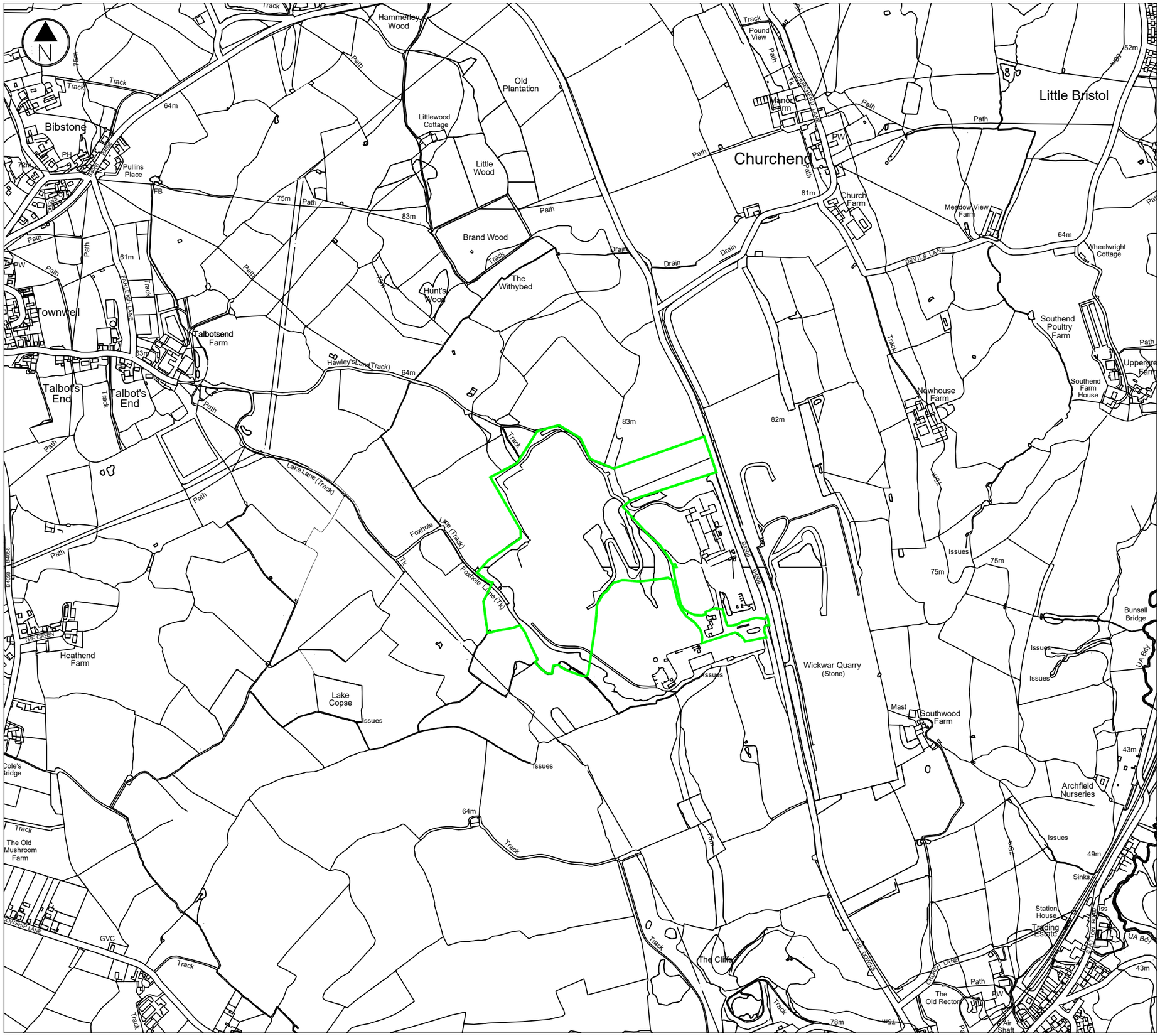
6.2 All site operatives will receive internal dust and emissions training. Training is included within the site induction (upon the start of employment), during daily site briefings, and through tool box talks.

6.3 As a minimum, this plan will be reviewed by the site manager on an annual basis to ensure that it is up to date, addressing the dust risks of the operations at any time. The plan will be reviewed by Senior Management either following an emissions incident quantified by a substantiated complaint, a monitoring threshold exceedance or observed emissions over the boundary or change to the processing plant. The review procedure will be undertaken within 1 month of the incident to allow any further data to be interpreted. The review will ensure mistakes are learnt from and new/improved methods will be integrated.

6.4 The main site telephone number, including site emergency number is displayed on the exterior of the site boundary on signage and the site telephone number and email are found on the website. Complainants are readily able to contact site management through different avenues, allowing their concerns to be addressed in a timely manner.

6.5 The operator regularly engages with the local parish council by means of attending meetings, email correspondence and phone calls. In the event there are significant changes to the site processes the local council will be contacted to discuss these details and provide further information to the residents of the locality. The Operator has previously invited local groups and local MP for site tours to raise awareness of the good work. Invitation is granted on a case by case basis and would be subject to the Operator's discretion.

DRAWINGS



KEY

Wickwar Landfill Permit Boundary (EPR/KB3003LM)

Wickwar Landfill is centered at National Grid reference ST 71207 90058.

.

Rev.	Details	Drawn / Chkd.	Date

Project

223212 Wickwar Landfil
The Downs
Wotton Under Edge
Wickwar, GL12 8LF

Title

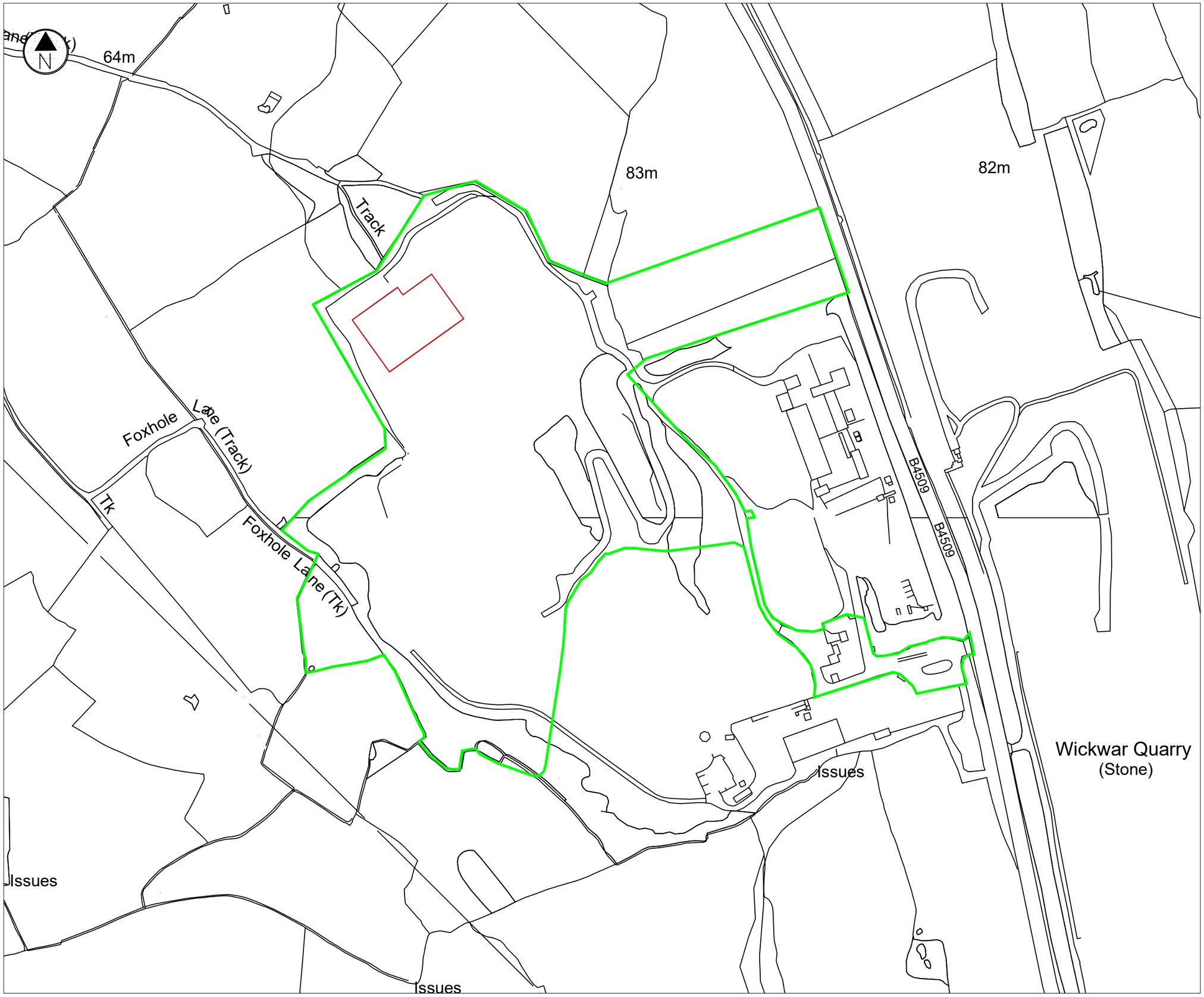
Site Location Plan

AA Environmental Ltd
Units 4-8
Cholswell Court
Shippon Abingdon
Oxon OX13 6HX

T:(01235) 536042
F:(01235) 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Environmental Consultants

Scale	Date	Drawn	Chkd.	Drg. No.	Rev.
1:10,000@A3	Feb'25	SM	EB	223212/D/001	



KEY

Wickwar Landfill Permit Boundary (EPR/KB3003LM)

Soil Wash Plant Activity Boundary

Wickwar Landfill is centered at National Grid reference ST 71207 90058.

The soil wash plant activity is centered at National Grid Reference ST 71112 90227 and is covered under the Wickwar Landfill permit (EPR/KB3003LM).

Rev.	Details	Drawn / Chkd.	Date

Project

223212 Wickwar Landfil
The Downs
Wotton Under Edge
Wickwar, GL12 8LF

Title

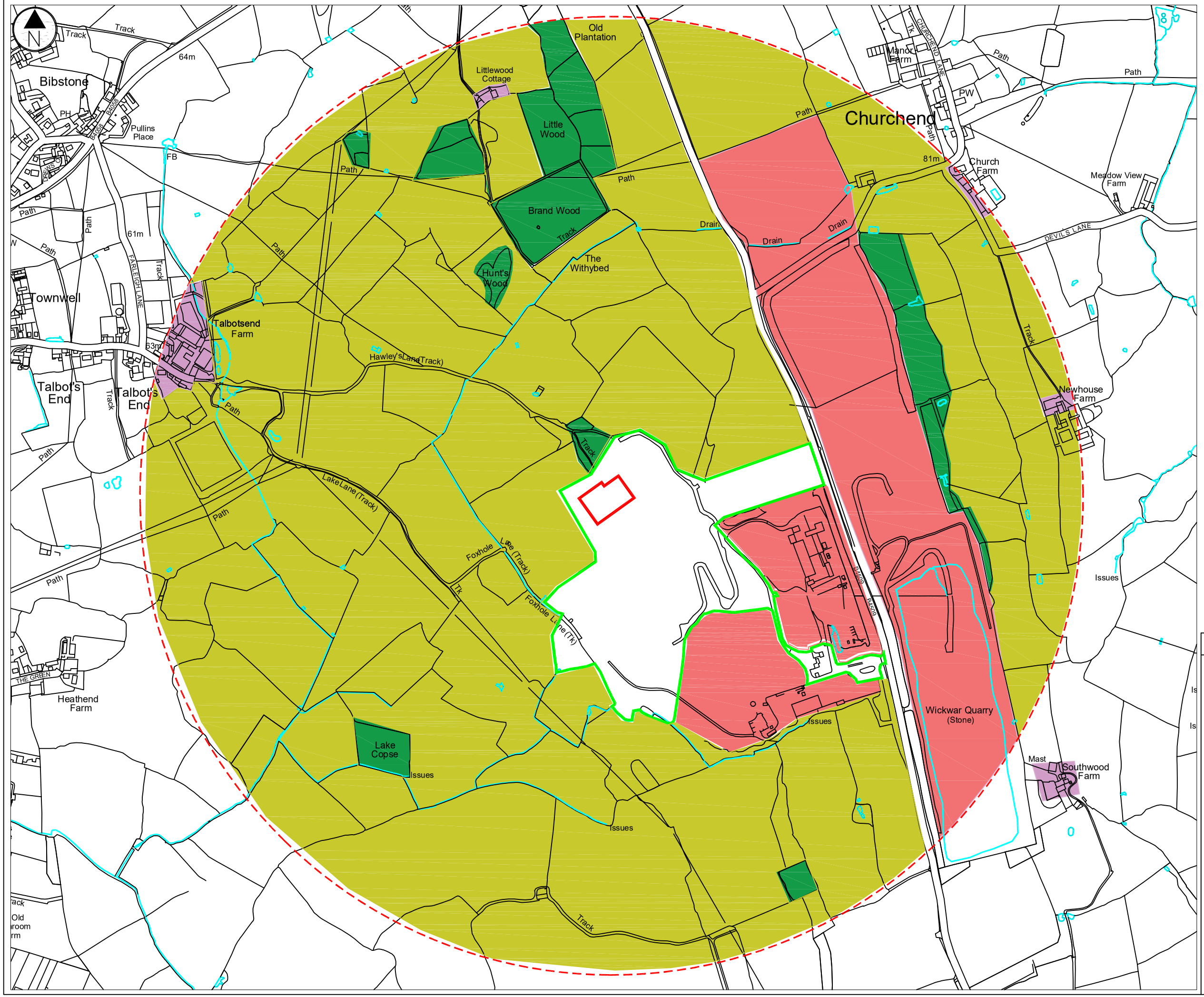
Activity Boundary Plan

AA Environmental Ltd
Units 4-8
Cholswell Court
Shippon Abingdon
Oxon OX13 6HX

T:(01235) 536042
F:(01235) 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Environmental Consultants

Scale	Date	Drg. No.	Rev.
1:4,000@A3	Feb'25	223212/D/002	
	Drawn: SM / Chkd.: EB		



KEY

- Soil Wash Plant Activity Boundary
- Wickwar Landfill Permit Boundary
- 1 km Radius Around Soil Wash plant

Receptors

- Residential
- Environmental
- Agricultural
- Commercial / Industrial
- Surface Waters

Rev.	Details	Drawn / Chkd.	Date

Project

223212 Wickwar Landfil
The Downs
Wotton Under Edge
Wickwar, GL12 8LF

Title

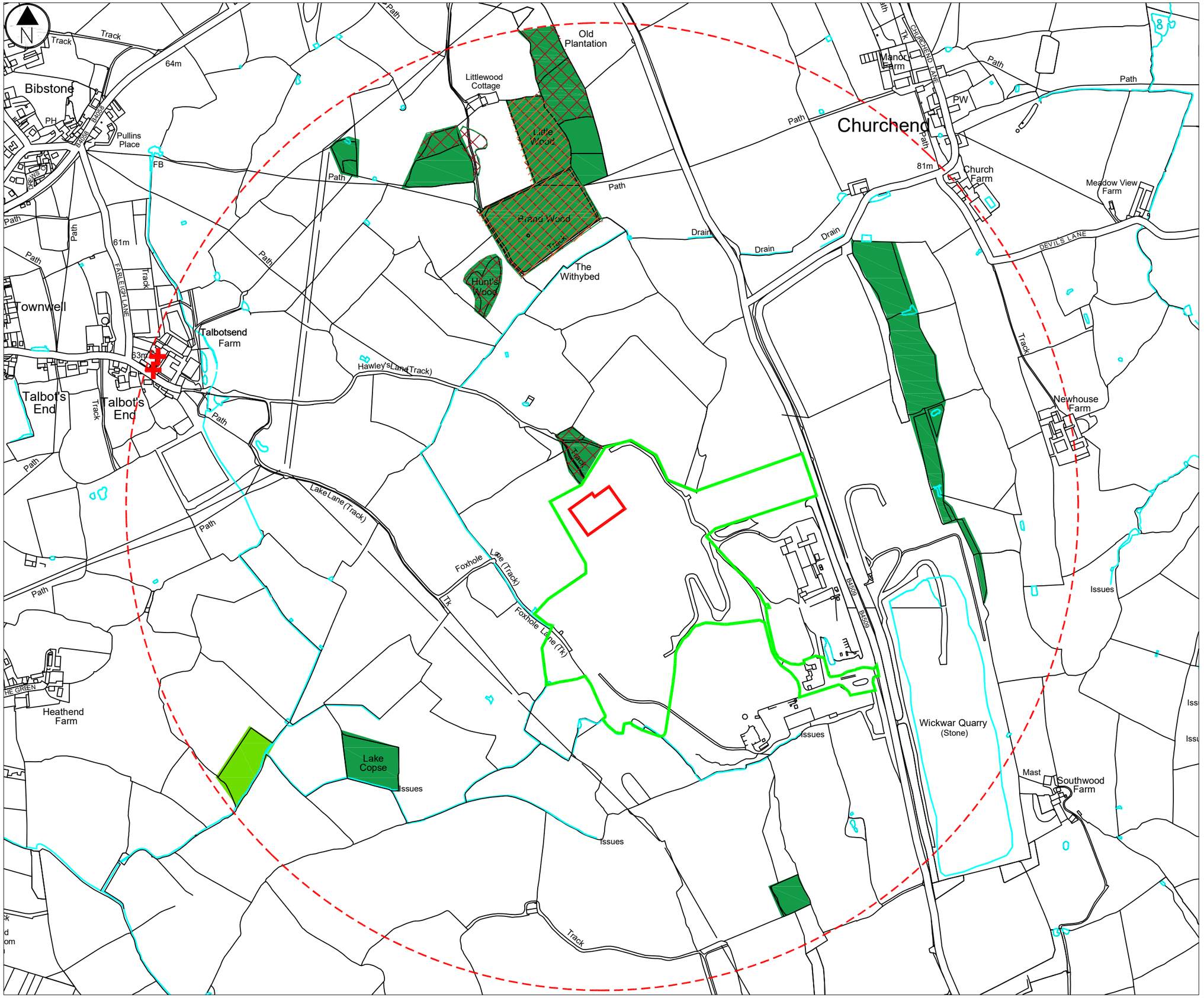
Environmental Receptors

AA Environmental Ltd
Units 4-8
Cholswell Court
Shippon Abingdon
Oxon OX13 6HX

T: (01235) 536042
F: (01235) 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Environmental Consultants

Scale	Date	Drg. No.	Rev.
1:8,000@A3	Feb'25	223212/D/003A	
	Drawn: SM / Chkd.: EB		



KEY

- Soil Wash Plant Activity Boundary
- Wickwar Landfill Permit Boundary
- 1 km Radius Around Soil Wash plant

Receptors

- Woodlands
- Priority Habitat - Woodlands
- Ancient Woodlands
- Priority Habitat - Orchard
- Listed Buildings
- Surface Water
- Public Right of Way

There are no Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), Local Nature Reserves (LNR), National Nature Reserves (NNR), Ramsar Sites or Special Protected Areas (SPA) within 1 km of the soil wash plant activity.

There are no Scheduled Monuments or World Heritage Sites within 1 km of the soil wash plant activity.

Rev.	Details	Drawn / Chkd.	Date

Project

223212 Wickwar Landfil
The Downs
Wotton Under Edge
Wickwar, GL12 8LF

Title

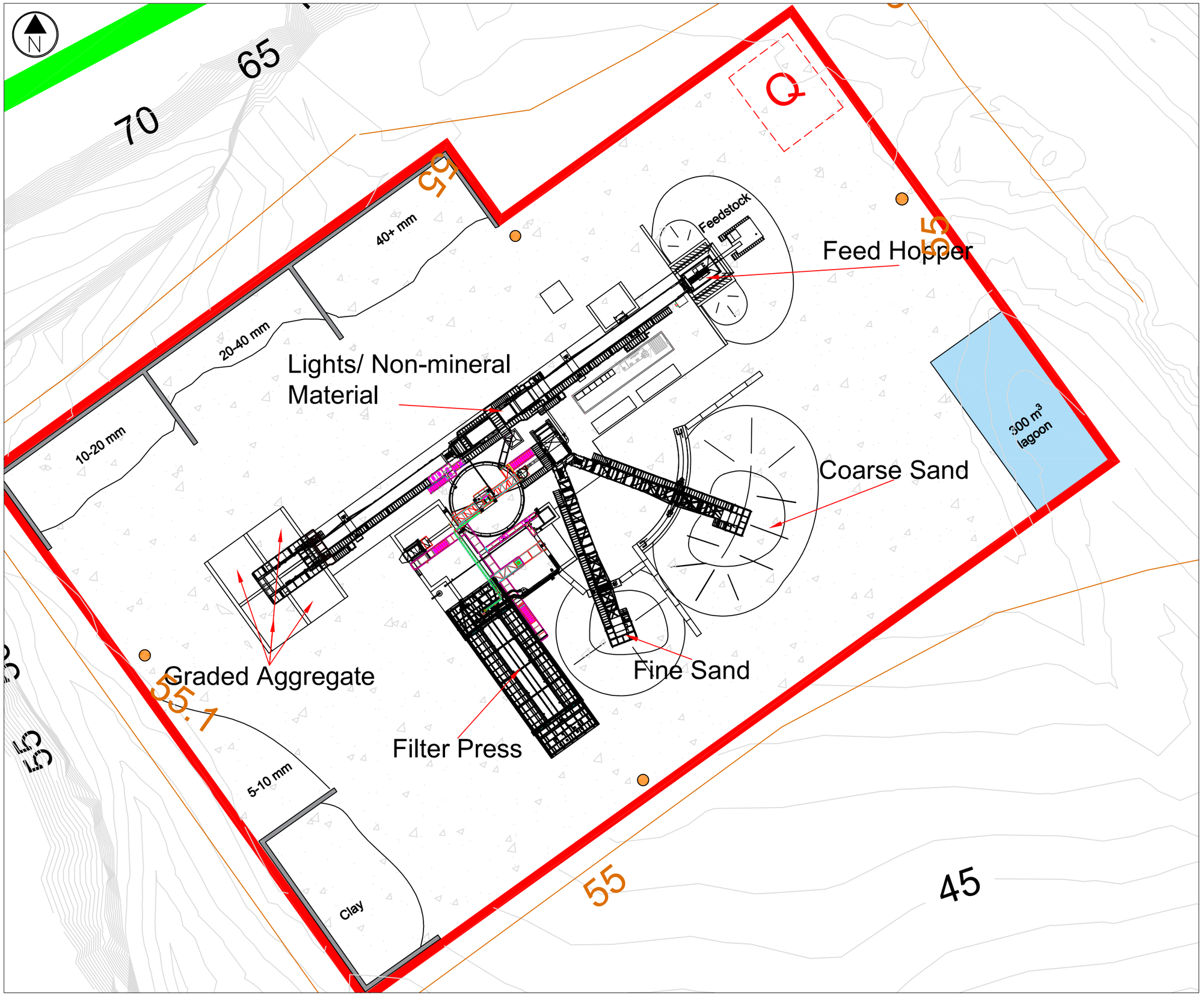
Cultural and Natural Heritage

AA Environmental Ltd
Units 4-8
Cholswell Court
Shippon Abingdon
Oxon OX13 6HX

T:(01235) 536042
F:(01235) 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Environmental Consultants

Scale	Date	Drawn	Chkd.	Drg. No.	Rev.
1:8,000@A3	Feb'25	SM	EB	223212/D/003B	



KEY

- Soil Wash Plant Activity Boundary
- Quarantine Area
- Concrete Bays
- Concrete surfacing
- Platform Level Contour (55 mAOD)
- Visual Monitoring Location

Rev.	Details	Drawn / Chkd.	Date

Project

223212 Wickwar Landfil
The Downs
Wotton Under Edge
Wickwar, GL12 8LF

Title

Site Layout Plan - Soil Wash Plant

AAe Environmental Consultants

AA Environmental Ltd
Units 4-8
Cholswell Court
Shippon Abingdon
Oxon OX13 6HX

T:(01235) 536042
F:(01235) 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

Scale	Date	Drg. No.	Rev.
1:400@A3	Feb'25	223212/D/004A	
	Drawn: SM / Chkd.: EB		

N

B4509

B4509

Wheel Wash

Weighbridge
and ticket office

Issues
Site Office, Staff Parking, Welfare, Plant Maintenance and Storage Area

KEY

- Soil Wash Plant Activity Boundary
- Haul Route
- COSSH Storage
- Spill Kits

Rev.	Details	Drawn / Chkd.	Date

Project

223212 Wickwar Landfil
The Downs
Wotton Under Edge
Wickwar, GL12 8LF

Title

Site Layout Plan - Wider Site

AA Environmental Ltd
Units 4-8
Cholswell Court
Shippon Abingdon
Oxon OX13 6HX

T:(01235) 536042
F:(01235) 523849
info@aae-ltd.co.uk
www.aae-ltd.co.uk

AAe
Environmental Consultants

Scale	Date	Drg. No.	Rev.
1:4,000@A3	Feb'25	223212/D/004B	
	Drawn: SM / Chkd.: EB		

Appendix A
Source, Pathway Receptor Table

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Dust, mud and debris from vehicle operations	Tracking dust on wheels and vehicles, then mud dropping off wheels/vehicles when dry Debris falling off lorries Re-suspension of particles during movement ; atmospheric dispersion	Surrounding receptors listed in Table 2.1	Visual soiling, resuspension as airport particulates	Site wide speed limit set at 10 mph for all HGVs. Hand sweeping and road sweeping implemented, with access point swept and maintained daily. Weather will be monitored and site operations limited accordingly./ higher frequency of implemented dust, debris and particulate controls. Clearing of debris by front loader and manual sweeping at the start and end of each shift and as identified during visual inspection. Road sweeper to maintain integrity of the impermeable hardstanding at the access/egress point of the haul route. All HGVs leaving the site must use the wheel wash. Lorries covered at arrival, exit and during transit on site – they will only unsheet at the inspection point of the weighbridge, and again when tipping / loading.
Tipping, storage, washing of waste.	Atmospheric dispersion	Surrounding receptors listed in Table 2.1	Airborne particulates	Main process is inherently a wet screening process with 10 % water minimum added to the products (clay and sands). The 10 mm, 20 mm, 40 mm and 75 mm are heavy aggregates with no friable fraction and are of low dust potential. Minimising drop heights and design of internal layout to minimise double handling. Stockpiles will be compacted before the end of each day. All stored material will be stored at less than the angle of repose for that material.
Vehicle exhaust emissions	Atmospheric dispersion	Surrounding receptors listed in Table 3.1	Airborne particulates	Regulatory controls and best-practice measures to minimise source strength. Regular maintenance in line with manufacturer guidance.

Appendix B
Complaints Procedure & Form

Complaints Procedure

INTRODUCTION

This Complaints Procedure outlines how the Operator will respond in the event of a complaint. A complaint may arise relating to the site permitted activities involving a nuisance (dust, noise, odour, pests). This procedure contains information on how any complaint will be investigated and any actions taken as a result of the complaint.

KEY CONTACTS

The key contacts will be shown on the site notice board at the site entrance. Alternatively, any complaints can be made at the site to any site operative and/or the Site Manager.

PROCEDURE

1. Any complaints made will be immediately logged by the Site Manager and/or Site Operative. In the event a complaint is made to a Site Operative, the Site Operative will refer the complaint to the Site Manager. If able to do so, the complainant details will be taken on initial contact either by phone or in person.

2. The Site Manager (or nominated operative) will discuss any concerns with the complainant directly within 1 working day of the complaint being made; and request contact details to notify the complainant of any updates/corrective measures. The complain will be logged using the Complaint Form (attached) and given a unique reference number.

2. The Site Manager will review the site activities and ensure control measures are in accordance with the Site's Management Systems.

3. The Site Manager will investigate the location of concern raised in relation to the site i.e. at a local receptor location and/or public highway to inspect the impact on the receptor.

4. The Site Manager will notify the complainant of any updates to the control measures / site operations. Control measures may be corrective and/or preventative and include additional control measures and/or increase the frequency of an existing control measure. Alternatively, the design of the site operations may change to decrease nuisance to that receptor.

5. In the event the same issue persists, the Site Manager will further review site operations and control measures. This may require a temporary cessation of certain operations whilst additional measure is implemented. The works will not recommence until further control measures have been incorporated and a review of effectiveness has been agreed / witnessed by the Site Manager. The complainant will be kept abreast of further measures.

RECORDS

On site Records
A copy of this procedure is kept on site and briefed to all site operatives upon site induction. Any identified complaints, incidents or accidents, as well as corrective measures, are recorded in the Complaint Form. Copies of the complaint forms are kept on site.

Review
This procedure is reviewed on a yearly basis or post-incident to ensure it remains up-to-date with the site operations. The review procedure would involve the Senior Management Team and site team collectively to establish the root cause and the best available control techniques. The review will take place within 1 month of the incident.

Complaint Form

Complaint Form Reference No.	

Date of Complaint	

Details of Complainant			
Name			
Address			
Contact Number		**Email Address**	
Nature of Complaint			
Reported To		**Date of Incident (if different to date of complaint)**	
Corrective Measure Taken			
Follow up Communication with Complainant			
Preventative Measure Taken (if any)			
Sign off		**Close out Date**	