



Planned Extension to Linhay Hill Quarry, Ashburton

Construction Dust Management Plan for Stage 1
E&JW Glendinning Ltd.

April 2024

LINHAY-ATK-S1-GEN-E-RP-002

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1. Introduction

- 1.1. This Construction Dust Management Plan (DMP) is to control and minimise dust emissions during construction of the Stage 1 development works for the planned extension to Linhay Hill Quarry, located at Ashburton, Devon, the focus of this DMP being avoidance of an offsite impact.
- 1.2. The Dartmoor National Park Authority planning permission reference 322/16 and DCC/3994/2017 has specific pre-conditions several of which entail construction prior to commencement of the quarry extension.
- 1.3. Those conditions include provision of a Construction Environmental Management Plan (for planning condition 23) which is a 'live' document that will be updated whenever necessary and as information becomes available for specific activities.
- 1.4. The Construction Environmental Management Plan may include management plans, construction method statements, and environmental method statements for the implementation of the planned construction works, and this Construction Dust Management Plan forms part of the Construction Environmental Management Plan for Stage 1 of the Linhay Hill Quarry extension. Linhay Hill Quarry also carries out dust management under its environmental management system document SHE-PLA-007 Dust Management Plan. That applies similar controls and is relevant for planning condition 36 which requires an Operational Dust Management Plan, and there is crossover between the management plans which at times will apply concurrently as the construction works transition to quarrying.

Planned Construction Activities and Dust Emissions

- 1.5. Construction site areas covered by this Construction Dust Management Plan (DMP) are summarised in the following table.

Table 1-1 – Construction site areas / activities covered by DMP

Construction Site Area	DMP Version	DMP Date
Alston Lane – closed and hedgerows translocated to donor sites.	R1	May 2024
Alston Cross junction at A38 – closed and landscaped.	R1	May 2024
Stage 1A west and Stage 1A east bunds – overburden placement, drainage works, and restoration.	R1	May 2024
Stage 1B bund – overburden placement, drainage works and restoration.	R1	May 2024
Permissive footpath – from public footpath at Waye Farm to Caton Lane via Alston Farm.	R1	May 2024
Hedgerow planting – within Alston Farm to reinstate historic hedge pattern.	R1	May 2024

- 1.6. The following foreseeable activities have a potential to affect the local air quality either via vehicle emissions or fugitive emissions (dust):
 1. Enabling works e.g. vegetation clearance.
 2. Demolition of existing structures e.g. road pavement, kerbs.
 3. Excavation and earthmoving for drainage, topsoil stripping and overburden excavation, and landscaping.
 4. Formation of material stockpiles for topsoil and the bunds of overburden and wind erosion from stockpiles or the bund areas.
 5. Formation of haul routes.
 6. Vehicular traffic within the construction site areas.
 7. Wind erosion from exposed soils.

Dust Management Guidance

- 1.7. In relation to dust management the development construction will comply with statutory, health and safety, and planning requirements, and seek to adhere to best practice guidance, particular guidance relevant to the dust management and the formation of this Dust Management Plan are:
- Technical Guidance to the National Planning Policy Framework and planning practice guidance on Air Quality – How can an impact on air quality be mitigated? Paragraph:008 Reference ID: 32-008-20191101 revision date 01/11/2019.
 - Institute of Air Quality Management (IAQM) publication Guidance on the assessment of dust from demolition and construction, version 2.1, August 2023.
 - HSE information sheet – Construction Dust.
 - HSE online guidance for Construction dust: specific tasks
<https://www.hse.gov.uk/construction/healthrisks/hazardous-substances/construction-dust-specific-tasks.htm>
 - BRE publication BR456 Control of dust from construction and demolition activities, 2003.

Potential Off Site Dust Sensitive Receptors

- 1.8. The background air quality in the local area will generally be good, with the possible exception of close to the A38, or local roads at peak traffic times.
- 1.9. Dust can be dispersed by the wind and smaller dust particles remain airborne for longer, dispersing widely and depositing more slowly over a wider area. Research reported in Annex 1 of Mineral Planning Guidance Note 11: Controlling and Mitigating The Environmental Effects of Minerals Extraction in England – Consultation Paper May 2000, has shown that large dust particles (>30µm) will, largely, be deposited within 100m of sources, while intermediate sized particles (10- 30 µm) are likely to travel up to 200–500m. Fine dusts (<10 µm), which make up a small proportion of dust emitted from most workings, can travel up to 1 km from the sources but have a very low deposition rate and so are unlikely to create an adverse amenity effect. Modelling studies show that deposition rates decrease significantly in an almost logarithmic manner with increasing distance from the source.
- 1.10. For reference in implementing this Dust Management Plan the following table lists the nearest residential properties to the construction site areas and the sensitive receptors include those assessed in the Proposed Extension to Linhay Hill Quarry Environmental Statement (Part 3), June 2016, Chapter 14 Dust and Air Quality.
- 1.11. The assessment approach within that environmental statement chapter followed the IAQM Guidance on the assessment of dust from demolition and construction, 2014. However that has been updated to version 2.1, August 2023, which indicates assessment is normally required where there is a human receptor within 250m of the boundary of the site, or 50m for an ecological receptor, or within 50m of the route used by construction vehicles on the public highway, up to 250m from the site entrance. Consequently with reference to the assessed distances in the following table, sensitive receptor locations further afield than 250m from a dust source are unlikely to be affected and are not considered a priority for dust control and mitigation, a possible exception being if a strong consistent wind occurs blowing from an elevated dust source towards a sensitive receptor with no or few obstructions between the source and receptor.

Table 1-2 – Nearest Sensitive Receptors to the Construction Site Areas

Property / Location	Construction Activity (which may increase potential for an impact from dust)	Location of construction activity relative to receptor			Receptor Area Sensitivity
		Direction from receptor to activity i.e. wind from activity to receptor	To centre	To closest	
Lower Way	Alston Lane – closed and hedgerows	ESE	40m	15m	High
Momalda		ESE-SE	90m	60m	High
Three Gates		N-NE	430m	240m	High

Property / Location	Construction Activity (which may increase potential for an impact from dust)	Location of construction activity relative to receptor			Receptor Area Sensitivity
		Direction from receptor to activity i.e. wind from activity to receptor	To centre	To closest	
A38 major class A trunk road	translocated to donor sites.	NW-NE	310m	35m	Low
Mead Cross unconfirmed wildlife site		NW	375m	90m	Low
Ecological habitat: species-rich hedgerows, species-rich grasslands, scattered broad-leaved trees		SW-W	250m	100m	Low
Three Gates	Alston Cross junction at A38 – closed and landscaped.	N-NE	460m	110m	High
A38 major class A trunk road		NW-N	25m	0m	Low
Mead Cross unconfirmed wildlife site		NW-N	70m	45m	Low
Ecological habitat: species-rich hedgerows, species-rich grasslands, scattered broad-leaved trees		S and N	25	15	Low
Three Gates	Stage 1A west and Stage 1A east bunds – overburden placement, drainage works, and restoration.	NE	600m	115m	High
Properties at Caton House, Jasmine Cottage, Westdown Cottage, Little Caton, The Barn		WSW-SW	420m	200m	High
Properties at Goodstone: Homeleigh, The Glen, Catonia		W	400m	180m	High
A38 major class A trunk road		NW-N	40m	15m	Low
Mead Cross unconfirmed wildlife site		NW-NE	80m	65m	Low
Ecological habitat: species-rich hedgerows, species-rich grasslands, scattered broad-leaved trees		All directions	>150m	0m	Low
Alston Cottage	Stage 1B bund – overburden placement,	E-SE	360m	185m	High
Alston Farmhouse		ESE-SE	400m	220m	High
Caton Cottage, The Nook, Caton Farmhouse		W-SW	190m	90m	High

Property / Location	Construction Activity (which may increase potential for an impact from dust)	Location of construction activity relative to receptor			Receptor Area Sensitivity
		Direction from receptor to activity i.e. wind from activity to receptor	To centre	To closest	
Properties at Caton House, Jasmine Cottage, Westdown Cottage, Little Caton, The Barn	drainage works and restoration.	SSW-NW	150m	35m	High
Properties at Goodstone: Homeleigh, The Glen, Catonia		NW-NNW	400m	105m	High
A38 major class A trunk road		NW-N	150m	12m	Low
Ecological habitat: species-rich hedgerows, species-rich grasslands, scattered broad-leaved trees		All directions	>200m	0	Low
Waye Farm	Permissive footpath – from public footpath at Waye Farm to Caton Lane via Alston Farm.	NW-N	>200m	50m	High
Waye Cottage		NW-NNW	>275m	130m	High
Waye Court, The Waye House, The Coach House		NW-NE	>150m	130m	High
Momalda		NE	>250m	80m	High
Lower Waye		NNE-NE	>250m	115m	High
Alston Cottage		NW-NE	250m	115m	High
Alston Farmhouse		NW-NE	250m	35m	High
Little Barton		SW-SSE	450m	165m	High
Samastar		S-W	500m	90m	High
Caton Cottage		NW-NNW	570m	250m	High
Little Barton Fields unconfirmed wildlife site		S-SW	110m	0m	High
Ecological habitat: species-rich hedgerows, species-rich grasslands, scattered broad-leaved trees		All directions	>250m	0m	Low
Properties at Brownswell: Lower Brownswell, Higher Brownswell,	Hedgerow planting – within Alston Farm to reinstate historic hedge pattern.	SSE	300m	225m	High
Waye Cottage		SW-S	220m	115m	High
Waye Farm		S-W	225m	165m	High

Notes:

- From IAQM Guidance on the assessment of dust from demolition and construction, 2014, Box 6 Sensitivities of People to Dust Soil Effects:

Property / Location	Construction Activity (which may increase potential for an impact from dust)	Location of construction activity relative to receptor			Receptor Area Sensitivity
		Direction from receptor to activity i.e. wind from activity to receptor	To centre	To closest	
High sensitivity receptor – surrounding land where: users can reasonably expect enjoyment of a high level of amenity; or the appearance, aesthetics or value of their property would be diminished by soiling; and the people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. Indicative examples include dwellings, museums and other culturally important collections, medium and long term car parks and car showrooms. Medium sensitivity receptor – users would expect to enjoy a reasonable level of amenity, but would not reasonably expect to enjoy the same level of amenity as in their home; or the appearance, aesthetics or value of their property could be diminished by soiling; or the people or property wouldn't reasonably be expected to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. Indicative examples include parks and places of work. Low sensitivity receptor – the enjoyment of amenity would not reasonably be expected; or property would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling; or there is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. Indicative examples include playing fields, farmland (unless commercially-sensitive horticultural), footpaths, short term car parks and roads. 2. From IAQM Guidance on the assessment of dust from demolition and construction, 2014, Box 8 Sensitivities of Receptors to Ecological Effects: High sensitivity receptor – locations with an international or national designation and the designated features may be affected by dust soiling; or locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red Data List For Great Britain. Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings. Medium sensitivity receptor – locations where there is a particularly important plant species, where its dust sensitivity is uncertain or unknown; or locations with a national designation where the features may be affected by dust deposition. Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features. Low sensitivity receptor – locations with a local designation where the features may be affected by dust deposition. Indicative example is a local Nature Reserve with dust sensitive features.					

Air Quality Criteria

- 1.12. A number of air-quality criteria have been set for particulate pollutants in different situations, such as for air quality management, annoyance, worker protection or overall environmental protection. The main aspects to air quality criteria for assessing particulate matter or dust are the annoyance effects and health effects. For the annoyance effects all sizes of particulate are considered, but for health effects the main focus is on particles less than 10 micro-metres in diameter. Those particles are known as PM10 and are small enough to be captured by inhalation and slow to deposit.
- 1.13. Potentially applicable air quality criteria for dust management are summarised in Appendix A, however annoyance often occurs due short-term high deposition rates which are invariably associated with particular weather conditions or transient activities. Hence an average deposition rate is only an indicator of the likelihood of annoyance and complaints may occur at deposition rates less than guideline values. The rate of deposition may vary widely with emissions, variations in wind speed and direction, and also variations in the background dust concentration. Background levels will also influence the reaction of receptors to additional dust from specific sources, together with the following factors:
- The frequency of dust deposition incidents – a community may be prepared to tolerate an incident once a month, but not repeated incidents at frequencies of once or twice a week.
 - The area affected by deposition – the larger the emissions, the larger the area affected and thus the greater probability of a complaint.

Weather

- 1.14. The most important meteorological parameters governing the atmospheric dispersion of fugitive dust are:
- wind direction, the prevailing wind over the UK being south westerly;
 - wind speed i.e. high enough to cause dust to become airborne; and
 - atmospheric stability, i.e. the amount of turbulence, particularly of the vertical motions.

- 1.15. Additionally rainfall is an important factor influencing whether dust is likely to become airborne and the local topography, structures and vegetation (e.g. trees and hedges) will affect wind characteristics near or at a construction site, hence planned dust control and mitigation also have to respond reactively to local transient conditions including rainfall and drying conditions.
- 1.16. That is because, for example, wind erosion dust emissions are known to be strongly correlated with wind speed and the inverse square of the moisture content. Thus a small increase in moisture content of the material which may give rise to dust can yield a large increase in control efficiency, with 55% control efficiency potentially achievable by a 50% increase in moisture content and a high end control efficiency of 75% corresponding to a doubling of moisture content. Beyond that point, control efficiency increases more slowly with moisture content.

2. Dust Control and Mitigation Measures

Objective

- 2.1. Dust emissions will be minimised through good industry practices adopted for dust control, by employing dust control measures, and regular observations to ascertain if dust arising and deployment of appropriate contingency measures as set out in this Dust Management Plan.

Contractual Controls

- 2.2. Visitors and sub-contractors will be required to abide by the site safety, health and environmental rules including the Construction Environmental Management Plan, and employ good practice as outlined in this Dust Management Plan to minimise dust emissions, such as keeping dusty materials covered and obeying the site traffic routes and speed limits.

Dust Control and Mitigation

- 2.3. Good dust control measures are a fundamental to construction entailing excavations and materials movement and those to be applied are detailed in the following table.

Table 2-1 – Dust Control and Mitigation Measures

Potential Dust Source	Planned Control Measures	Contingency Measures (see note 1)
General Engineering Construction Activities	1) Programme of work to take account of five day and daily weather forecasts with daily activities and materials to be sited so that whenever possible dust blows across site and not off site or towards receptors and that dust emissions are minimised. 2) Wind speed (qualitative assessment using Beaufort scale) and direction to be assessed at the start of work. Where potential for dust generation i.e. strong Force 3 and above, wind speeds to be checked more frequently. 3) Consideration to be given to erecting solid screens or barriers around dusty activities when wind strength and direction will result in dust lifting and its dispersion and when those activities cannot be postponed till more suitable weather conditions. 4) Dust producing activities to be temporally ceased or modified when unfavourable conditions exist such as high wind speed (greater than 5m/s i.e. strong Force 3 and above) or dry weather and whenever dust is seen to be arising with a potential to migrate off site. 5) Cutting, grinding or sawing equipment only to be used if fitted with suitable dust suppression or extraction or no likelihood of off-site dust emissions. 6) Visual checks of airborne and deposited dust to be conducted downwind of the works at the site boundary if evidence of wind causing dust to lift.	Initial: 1) Activity to be temporarily ceased or moved to a location that reduces possible impact to a receptor. 2) If complaints received though no visual dust deposits observed, simple dust monitoring to be considered in line with Beaman & Kingsbury "Assessment of Nuisance from Deposited Particulates Using Simple and Inexpensive Measuring System" e.g. directional and depositional sticky pad dust gauges from DustScanAQ. Subsequent: 3) Apply water spray to reduce dust generation. 4) Use a dust suppressant additive in water spray to increase water spray effectiveness and longevity for dust suppression.

Potential Dust Source	Planned Control Measures	Contingency Measures (see note 1)
	7) Dropping height of materials to be kept to a minimum. 8) All placed material to be compacted as soon as practically possible. 9) Vehicle movements to be limited as necessary to prevent the production of dust from potential SHW Series 600 Class U1B or Class U2 material if encountered (and trafficking on those materials is to be avoided). 10) Paved roads to be swept or water spray apply when required to minimise dust emissions.	
Material Sorting or Processing (if required)	1) Material sorting (if required) to be sited in location as far from site perimeter / receptors as practically possible within the available working area. 2) Plant / drop area to be screened e.g. with temporary wind boards or non active stockpile. Drop heights to be practical minimum.	Initial: 1) Activity to be temporarily ceased until cause of emissions established. 2) Water sprays used to prevent dust generation. Subsequent: 3) Stockpiles of screened material containing increased proportion of fines to be covered or enclosed in temporary bays to prevent wind erosion. 4) Activity to be moved to a location that reduces possible impact to a receptor.
Construction Plant and Transport	1) On road vehicles to comply with statutory emission requirements. 2) Vehicle engines to be switched off when stationary, no idling. 3) Where possible temporary haul roads to be constructed and maintained with low fines material. 4) Construction vehicles not to be overloaded to reduce fall of soil/rock material onto haul roads. 5) Speed within construction site area to be limited to average of 15 km/hr. 6) Temporary haul roads if required to be preferentially sited away from site perimeter or screened by stockpiles or preferentially used such that wind-blown emissions are in an across the site direction as opposed to off site. 7) Haul roads where required to be wide enough so that vehicles can pass without one or both vehicles needing to drive on natural ground alongside the road. 8) Water spray application at minimum rate of 0.2L/m² two times per day in dry conditions. Control efficiency to be monitored.	Initial: 1) Increased water spray application intensity or frequency on haul 2) Vehicle loads or speed to be reduced. Subsequent: 3) Use a dust suppressant additive in water spray to increase water spray effectiveness and longevity for dust suppression. 4) Activity to be temporarily ceased or moved to a location that reduces possible impact to a receptor. 5) Water spray or sheeting of material in haulage vehicles. 6) Cover of haul road with reduced fines material.
Stockpiling	1) Drop heights to be practical minimum.	Initial:

Potential Dust Source	Planned Control Measures	Contingency Measures (see note 1)
	2) All material to be compacted as soon as practically possible. 3) Stockpiles to be located away from sensitive receptors. 4) Stockpiles to be formed downwind of existing stockpiles where possible.	1) Stockpiles of Class U1B or Class 2 excavated material are to be sheeted. 2) Minimise size of stockpile. 3) Application of water spray. 4) Windbreak material / dust netting to line fencing around stockpiles to minimise dust movements. If necessary, a temporary lined fence to be situated downwind of stockpile. Subsequent: 5) Use a dust suppressant additive in water spray to increase water spray effectiveness and longevity for dust suppression. 6) Activity to be temporarily ceased or moved to a location that reduces possible impact to a receptor. 7) Stockpiles to be sheeted should soil become dry and airborne. 8) Stockpiles to be sheeted in moderate/heavy rain to minimise increase in moisture content, hence increased total weight, and to reduce run-off having suspended solids.
Wind Erosion	1) Where practically possible stockpiles to be orientated along the prevailing / predominant wind direction to present minimum cross sectional area to the wind. 2) Exposed area of soils in non-active areas to be seeded with grass and shrubs as soon as is reasonably practicable.	Initial: 1) Apply water spray with a dust suppressant additive. 2) Landscaping and wind shelter-belts to reduce effects of wind blow. 3) Consider application of approved soil stabilisation chemicals as last resort.
Site Deliveries	1) To use paved road where possible. 2) Road to be wide enough so that vehicles can pass without one or both vehicles needing to drive on natural ground alongside the road. 3) Sheetting of material in haulage vehicles. 4) Speed restriction to achieve mean of 15km/hr. 5) Haulage vehicles only to traverse a clean swept area.	Initial: 1) Vehicle loads or speed to be reduced. 2) Use of grate / rumble strip to remove loose material. 3) Application of water spray. 4) Consider vacuum sweeping with a 340m³/min vacuum system at a frequency of once every 2 days on paved roads. Control efficiency to be monitored. Subsequent: 5) Activity to be temporarily ceased or moved to a location that reduces possible impact to a receptor. 6) Increase frequency or capacity of vacuum sweeping.

Potential Dust Source	Planned Control Measures	Contingency Measures (see note 1)
		7) Use temporary wheel wash with self-contained water system; super-saturated water to be disposed off-site. 8) Establish vegetation cover on any bare areas of ground adjacent the road. 9) Establish wind break adjacent the road e.g. ditch, bund or fencing. 10) Mist water spray application, as continuous system alongside a road that operates transiently as vehicle passes.

Notes:

1: “Initial” Contingency Measures to be considered / implemented if “excess” emissions suspected, observed or detected based on the Dust Monitoring. “Secondary” measures to be considered and applied if source of “excess” emissions is not transient and selected dependent on measure most likely to achieve mitigation.

3. Monitoring

- 3.1. In order to ensure that effective dust control is being implemented so that airborne particulate and the rate of dust deposition do not increase at sensitive locations around the site, the following routine dust monitoring and weather observations are to be carried out.

Visual Monitoring

- 3.2. There will be a daily visual assessment of dust generation when wind speeds are greater than 5m/s (strong Force 3 and above) or when there has been no rainfall in the previous two days. A log of inspections will be maintained by the site manager or his/her representative recording the date and time of the inspection, the wind speed, last rainfall, any visual dust and the actions taken to suppress the emissions. An example Dust Visual Monitoring Record is provided in Appendix B.
- 3.3. Specific triggers for inspections are:
- When a production or activity threshold is reached.
 - Continual dry conditions exist or strong winds are forecast especially from the prevailing south west direction, e.g. when there has been no rainfall for an extended period and wind speeds greater than 5m/s (a Force 4 and above).
 - After a large storm or extraordinary event.

Quantitative Monitoring

- 3.4. The background dust level will be very low and the nearest sensitive receptors are specific properties.
- 3.5. The aim is for on-site activities to be undertaken during suitable weather conditions with application of appropriate dust management controls, though it possible that may necessitate a low intensity of construction, which adversely could lead to an extended construction duration.
- 3.6. It is considered there is not a need for quantitative dust monitoring for active management of the Stage 1 works, though that will be reviewed during the construction works, as it will partly be dependent on the weather pertaining i.e. wind strength and direction, how dry and friable the excavated materials area, and the required material movement or other specific construction tasks. The key is to be observant of those conditions and adjust the site working methods as outlined in this dust management plan.
- 3.7. If it is found that it would be prudent to carry out monitoring for dust, that will be undertaken using DustScan DS100-D combined directional and settlement dust monitoring gauges, located between the construction activities and sensitive receptors.

Wind Speed and Direction

- 3.8. On site weather conditions will be appraised based on visual observations and will be recorded daily when construction works are ongoing. Weather forecasts if required are to be obtained from the Met Office.

Review

- 3.9. The effectiveness of the dust control and mitigation measures and thereby this Dust Management Plan is to be reviewed regularly, e.g. at construction site management meetings.

4. Complaints Procedure

- 4.1. A complaint relating to possible dust arising from activities at the site is to be recorded and actioned on its receipt by the Site / Quarry Manager (or conveyed to the Site / Quarry Manager from site staff or visitors) or via notice to an E&JW Glendinning office, and the appropriate contingency measures must be applied as soon as the possible dust arising or concern is noticed.
- 4.2. That is so the possible dust arising or associated complaint can be investigated and acted upon contemporaneously and expeditiously with a high priority. A complaint received some time after cessation of the dust arising or occurrence of a possible dust concern may be investigated with lower priority because the concern will not be contemporaneously verifiable. However the circumstances of the incident complained about must be identified as a potential trigger for deployment of contingency measures in the event that the activity is undertaken again in a similar location.
- 4.3. Contact details for the Developer and Main Contractor for the constructions site works are as follows:

Table 4-1 – Planned Construction Contact Details

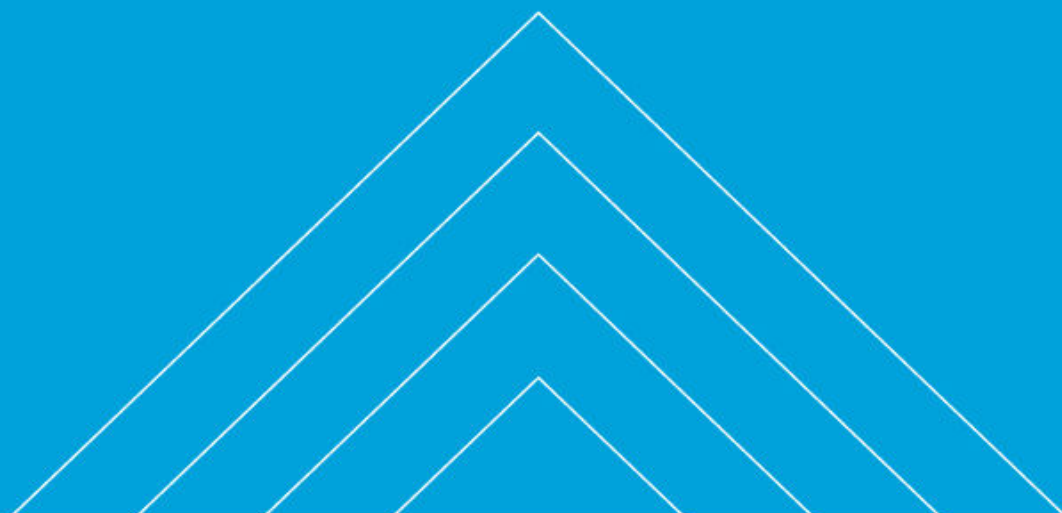
Role	Company Name	Primary Contact Details	Secondary Contact Details
Developer	E&JW Glendinning Ltd.	Barry Wilson, Managing Director, Glentor, Ashburton, Devon, TQ13, 7LF, Tel. 01364-652601, barry.wilson@ejwglendinning.co.uk	Duncan Sanders, Operations Manager (Contracting) Director, Glenway, Exhibition Way, Pinhoe, Exeter, Tel. 01392-465348, duncan.sanders@ejwglendinning.co.uk
Quarry Manager	E&JW Glendinning Ltd.	Neil Gibbs, Quarry Manager, Linhay Hill Quarry, Tel. 01364-652601, Mob. 07766-221209 neil.gibbs@ejwglendinning.co.uk	Justin Wickens Assistant Quarry Manager, Tel. 01364-652601, Mob. 0777-1542233 justin.wickens@ejwglendinning.co.uk
Main contractor – SHE Manager	E&JW Glendinning Ltd.	Dave Skinner, SHE Manager, 01364-652601, dave.skinner@ejwglendinning.co.uk	Mark Glendinning Operations Manager Operations and Production, Tel 0776- 8021173 mark.glendinning@ejwglendinning.co.uk

- 4.4. E&JW Glendinning Ltd.'s reporting procedures are digital via the Re-flow field workforce management software tool and an example of the incident report content is provided in the Construction Environmental Management Plan. Calls and complaints whether to site staff or E&JW Glendinning's offices are also recorded using the same system.
- 4.5. Using that incident reporting system the aim will be for the following to be recorded on receipt of a complaint relating to a possible dust concern:
- Complainant and complaint details recorded, i.e.
 - Name, address and preferred method of contact (post, phone, email).
 - Date and time complaint received and what prompted the complaint.
 - Type of dust concern e.g. cloud or plume, or deposited.
 - Duration and frequency of possible dust concern, or is it the first time the problem has been noticed.
 - Weather pertaining at time of possible dust concern.
 - Suspected activity causing the dust.

- Site / Quarry manager notified.
- Existing and recent weather conditions at the site i.e.
 - Temperature, rainfall, wind direction and speed.
- Inspection of suspected dust source and visual observations recorded.

4.6. Action implemented will be in accordance with Dust Control and Mitigation Measures detailed in the Dust Management Plan. Lessons learnt will be fed back to site staff through safety and environmental briefings by the Site / Quarry Manager or representative.

Appendices



Appendix A. Summary of Air Quality Criteria

Table A.1 – Summary of Air Quality Criteria

Application	Determinant	Limit Value	Reference
Annoyance	Deposited dust	200mg/m ² per day	“Custom and practice (England and Wales)” quoted in Environment Agency Technical Guidance Document (Monitoring) M17 Monitoring of particulate matter in ambient air around waste facilities.
		Open country: 100mg/m ² /day complaints possible, 140mg/m ² /day complaints likely. Residential areas and outskirts of town: 150mg/m ² /day complaints possible, 200mg/m ² /day complaints likely.	Vallack, H. W. & Shillito, D. E. (1998), “Suggested guidelines for deposited ambient dust”, Atmospheric Environment, Vol.32, pp.2737-2744.
	Soiling (by dust slide)	25 soiling units (SU) per week	“Custom and practice” quoted in Environment Agency M17.
	Soiling (by sticky pad)	0.5% effective area coverage (EAC) per day in rural summer time; public response: possible complaints. 0.2% EAC/day – noticeable, 0.7% EAC/day – objectionable, 2% EAC/day – probable complaints, 5% EAC/day – serious complaints.	Beaman, A.L. & Kingsbury, R.W.S.M. (1981), “Assessment of nuisance from deposited dust particulates using a simple and inexpensive measuring system”, Clean Air, Vol.11, No.2, pp.77-81.
	Soiling (by DustScan method)	Source significance: Very High if >25 %EAC/week or 100 for 45° %AAC/week Very Low if <2.5 %EAC/week or <80 %AAC/week, where AAC = absolute area coverage.	Datson, H., Birch, W.J. (2006), “The development of a novel method for directional dust monitoring”, Environmental Monitoring and Assessment, Vol.124(1-3), pp.301-308.
Air quality management and environmental protection	Suspended particulates	24 hour average PM ₁₀ concentration not to exceed 50ug/m ³ more than 35 times per year, annual average PM ₁₀ concentration not to exceed 40ug/m ³ .	EU limit and National Air Quality Strategy objective
Worker protection	Hazardous substances	Occupational Exposure Limits (OELs) for the UK, the following being potentially relevant: Silica, long-term exposure limits (8-hr TWA reference period): - respirable crystalline 0.1 mg/m ³ - amorphous inhalable dust 6mg/m ³ - respirable dust 2.4mg/m ³	HSE Guidance Note EH40

Appendix B. Example Dust Visual Monitoring Record

Example Dust Visual Monitoring Record

Sheet of Completed by

Activity Observed / Dust Source	Date:	Point of Observation	Visible Dust (Y or N, ✓ or X),			Comments and details of action or change if required, e.g. nil; modify, move reduce or suspend operation; apply or increase water spray dust suppression
			None	Within site only	Crossing site boundary	
	Time					

Weather and ground conditions (circle as appropriate)

Wind speed as Beaufort Scale:

0	1		2		3		4		5		6		7		8-12	
< 0.3m/s	0.3-1.5m/s		1.5-3.3m/s		3.3-5.5m/s		5.5-8.0m/s		8.0-10.8m/s		10.8-13.9m/s		13.9-17.2m/s		≥17.2m/s	
<1km/h	1-5km/h		6-11km/h		12-19km/h		20-28km/h		29-38km/h		39-49km/h		50-61km/h		≥62km/h	
Calm	Very light		Light breeze		Gentle breeze		Moderate breeze		Fresh breeze		Strong breeze		Near gale		Gale to hurricane	
Smoke rises vertically.	Smoke drifts.		Wind felt on face, rustles leaves.		Leaves and flags move.		Paper blown about, small branches move.		Large branches sway.		Large trees sway, difficult to walk.		Small trees blown down.		Structural to widespread damage.	
Wind from:	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
Rain:	None	Intermittent showers		Prolonged >1 hour		Very light Does not wet surface.		Light <2.5mm/hr Puddles form slowly.		Moderate 2.5-7.5mm/hr Puddles form rapidly.		Heavy >7.5mm/hr Falls in sheets.				
Ground surface:			Dry not dusty		Dry dusty		Drying		Damp		Wet (small puddles)		Very wet (large puddles)			

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