



# Waste Recovery Plan Addendum Maes Mynan Quarry Breedon Trading Limited

Document Reference: 361/2 -- WRP Addendum R1.0



# Minerals Waste Environment

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**Site / Project:** Maes Mynan Quarry  
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## Document Versions

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1.0	16/02/2023
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**Prepared by:** SP  
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## 1.0. Introduction

- 1.1. This document forms an addendum to the approved Waste Recovery Plan (WRP) submitted to Natural Resources Wales (NRW), referenced "*Appendix 1 – Approved WRP*", for the restoration of Maes Mynan Quarry, Mold, Clwyd ('The Site'). Further information was requested by NRW on the 17<sup>th</sup> of January 2023. This document seeks to provide the requested updates to the WRP and ERA, as well as the additional information requested relating to the EMS and dust emissions.

## 2.0. Additional Information

### 2.1. Increase in Annual Tonnage

- 2.1.1. Maes Mynan Quarry currently accepts up to 80,000 tonnes of waste per annum to fulfil the requirement of the approved restoration scheme at the site. Breedon Trading Limited intend to increase the annual tonnage of material allowed to be brought into the site from 80,000 tonnes per annum to 150,000 tonnes per annum. The total amount of material to be brought into The Site to complete the approved restoration scheme will remain unchanged. The increase in tonnage to be brought into The Site has been due to the closure of two inert facilities within the Wrexham area which has resulted in an increase of material available for importation to Maes Mynan. A planning application is currently being prepared to extend the end-date of The Site to allow a 2-year increase for the completion of restoration to October 2025.
- 2.1.2. There are no planning conditions restricting the annual tonnage of material to be allowed into the site.
- 2.1.3. The increase in tonnage proposed is not significant, resulting in an average increase from 15 vehicles in per day to 27 vehicles in per day importing waste (based on a 20-tonne load and a 275 working day year). Annual exportation of minerals from the site resulted in approximately 25 vehicles out per day and the increase to incoming waste is proposed to mostly be transported via return load from the export of minerals resulting in no additional vehicles on the road.

## 2.2. Accepted Waste Types

2.2.1. Table 1 shows the waste types currently accepted at The Site under the existing Environmental Permit (EPR/FB3897TV). There are no changes to the waste types proposed.

Waste code	Description
<b>01</b>	<b>Wastes resulting from exploration, mining, quarrying and physical and chemical treatment of minerals</b>
<b>01 01</b>	<b>Wastes from mineral excavation</b>
01 01 02	Wastes from mineral non-metalliferous excavation
<b>01 04</b>	<b>Wastes from physical and chemical processing of non-metalliferous minerals</b>
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
<b>02</b>	<b>Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing</b>
<b>02 04</b>	<b>Wastes from sugar processing</b>
02 04 01	Soil from cleaning and washing beet
<b>03</b>	<b>Wastes from wood processing and the production of panels and furniture, pulp, paper, and cardboard</b>
<b>03 03</b>	<b>Wastes from pulp, paper and cardboard production and processing</b>
03 03 05	De-inking sludges from paper recycling (restricted to use in the top restoration layer to act as a growing medium)
<b>10</b>	<b>Wastes from thermal processes</b>
<b>10 01</b>	<b>Wastes from power stations and other combustion plants (except 19)</b>
10 01 01	Bottom ash and slag from Power Stations only
10 01 02	PFA from Power Stations only
<b>10 12</b>	<b>Wastes from manufacture of ceramic goods, bricks, tiles and construction products</b>
10 12 08	Waste ceramics, bricks, tiles, and construction products (after thermal processing)
<b>10 13</b>	<b>Wastes from manufacture of cement, lime and plaster and articles and products made from them</b>
10 13 14	Waste concrete and concrete sludge
<b>17</b>	<b>Construction and demolition wastes (including excavated soil from contaminated sites)</b>
<b>17 01</b>	<b>Concrete, bricks, tiles and ceramics</b>
17 01 01	Concrete

Waste 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
<b>17 05</b>	<b>Soil (including excavated soil from contaminated sites), stones and dredging spoil</b>
17 05 04	Soil and stones other than those mentioned in 17 05 03
17 05 06	Dredging spoil other than those mentioned in 17 05 05
17 05 08	Track ballast other than those mentioned in 17 05 07
<b>19</b>	<b>Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use</b>
<b>19 08</b>	<b>Wastes from waste water treatment plants not otherwise specified</b>
19 08 02	Washed sewage grit (waste from desanding) only
<b>19 12</b>	<b>Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified</b>
19 12 05	Glass
19 12 09	Minerals (for example sand, stones)
19 12 12	Soil substitutes other than that containing dangerous substances only
<b>19 13</b>	<b>Wastes from soil and groundwater remediation</b>
19 13 02	Solid wastes from soil remediation other than those mentioned in 19 13 01
<b>20</b>	<b>Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions</b>
<b>20 02</b>	<b>Garden and park wastes (including cemetery waste)</b>
20 02 02	Soil and stones

## 2.3. Environmental Risk Assessment

2.3.1. The updated ERA is included as Appendix A.

## 2.4. Environmental Management System

2.4.1. *Breedon* are an ISO 14001 accredited company, and an overview of their EMS is included as Appendix B<sup>1</sup>.

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<sup>1</sup> The full management system can be provided on request.

2.5. Dust Emissions Management Plan

2.5.1. The DEMP is included as Appendix C.

## Appendix A: Environmental Risk Assessment

# H1 AMENITY RISK ASSESSMENT FOR MAES MYNAN QUARRY, USE OF WASTE FOR RESTORATION AND CONSTRUCTION - Update: annual tonnage increase from 80,000 to 150,000

Standard Facility:	Waste Recovery Operation for restoration
Location:	Maes Mynan Quarry
Location of environmentally sensitive sites (km / m):	Caerwys Tufa SSSI 160m east, Coed Trefraith SSSI 1km northeast, Ddol Uchaf SSSI 1.5km east, Ancient Woodland immediately northeast and along southwest boundary
Risk assessment carried out by:	Environment Agency / MPG Ltd.
Date:	15th February 2023

Data and information				Judgement			Justification for magnitude	Action (by permitting)	
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk		Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population	Releases of particulate matter (dust)	Harm to human health - respiratory irritation and illness	Air transport then inhalation/deposition.	Medium	Medium	Medium	Permitted waste types are inert and have a low potential to produce bioaerosols. The activities may produce dust from movement of vehicles and tipping operations especially in dry and also windy weather.  No mineral extraction or processing will take place to give rise to PM10; however, limited and localised PM10 emissions could be released from the tipping of inert waste. IAQM Guidance states <i>"If the long term background PM10 concentration is less than 17µg/m3 there is little risk that the Process Contribution (PC) would lead to an exceedance of the annual-mean objective"</i> (page 17) [https://iaqm.co.uk/text/guidance/mineralsguidance_2016.pdf].	Strict dust control measures are in place (doc ref: Appendix C - 361/2--DMP R1.0). The site will be subject to visual inspections throughout the day and stockpiles will be wetted down where required. Speed limits will be applied to minimise disturbance of dust. Site entrance road constructed to minimise dust emissions.  Estimate background levels of PM10 in Flintshire County Council did not exceed 14.3µg/m3 between 2018 and 2023. The closest monitored grid reference (x:312500 y:372500) to the site (approx 350m north) estimated background levels of PM10 is 8.82µg/m3 for 2023.	Low
Local human population.	Releases of particulate matter (dust)	Nuisance - dust on cars, clothing etc.	Air transport then deposition.	Medium	Low	Medium	Permitted waste types are inert. The activities may produce dust from movement of vehicles and tipping operations especially in dry and also windy weather.	Activities shall be managed and operated in accordance with the dust management plan that includes measures to prevent and reduce risk of dust being produced and where it is produced from leaving the site boundaries.	Low
Local human population.	Litter	Nuisance, loss of amenity and harm to animal health.	Air transport then deposition.	Low	Low	Very low	Waste types unlikely to contain significant amounts of litter, WAP dictate that loads containing litter would not be accepted.	Strict waste acceptance procedure as outlined in document ref: Appendix 1 - Approved WRP. The management system includes procedures to remove and contain any litter to prevent it being deposited at the site or to leave the site boundaries. If litter discovered in load post-tipping, picking of non-conforming materials would be carried out. Site daily checks include a daily site boundary walk-around and litter collection, where necessary.	Very low
Local human population.	Mud and waste on road	Nuisance, loss of amenity, road traffic accidents.	Tracked on tyres of vehicles entering and leaving the site and from loads which are not properly contained.	Medium	Medium	Medium	Waste types and site conditions may produce mud especially during wet weather.	Wheel wash provided and roads swept as required.	Low
Local human population .	Odour	Nuisance, loss of amenity.	Air transport.	Very low	Very low	Very low	Permitted waste types are inert and therefore should not be odorous.	Strict waste acceptance procedure as outlined in document ref: Appendix 1 - Approved WRP.	Very Low
Local human population.	Noise and vibration	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Medium	Medium	Medium	Local residents often sensitive to noise and vibration but there is usually low potential for exposure.	Nearest residential receptors are Maes Mynan Home Farm approx 50m west and approximately 60m southeast (separated by woodland) and 160m southwest (separated by fields and the A541). Holiday park 160m west of site (separated by storage yard for commercial vehicles and trailers). Plant used to move the waste will be properly serviced and maintained to minimise noise. Operations carried out only within the working day. Staff trained to minimise potential for noise and vibration from the operations.	Low



Data and information				Judgement			Action (by permitting)		
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
Local human population.	Scavenging animals and scavenging birds	Harm to human health from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land.	Low	Low	Very low	Wastes are limited to inert wastes that are not normally attractive to animals and birds.	Risk limited by permitted waste types and strict waste acceptance procedures.	Very low
Local human population and local environment.	Pests (e.g.) flies	Harm to human health. Nuisance, loss of amenity.	Air transport and overland.	Low	Medium	Medium	Wastes are limited to inert wastes that are not normally likely to encourage pest infestations.	Risk limited by permitted waste types and strict waste acceptance procedures.	Low
Local human population and local environment.	Flooding of site	If waste contaminated water is washed off site it may contaminate buildings, gardens, watercourses and natural habitats.	Flood waters	Low	Medium	Medium	Permitted waste types are inert so any waste washed off site will add to the volume of local post-flood clean up workload rather than the hazard. However they may cause increased suspended solids in local watercourse.	Surface water run-off will be directed to the lake within the void. There is no outlet but water loss will occur via natural evaporation and soak away.	Low
Local human population and /or livestock gaining unauthorised access to the waste operation.	All on-site hazards, wastes, machinery and vehicles	Bodily injury.	Direct physical contact	Low	High	Medium	Permitted waste types are inert therefore only a low risk from the actual waste. However there could be stockpiles that people could climb or void spaces that people could fall into and wastes have a higher risk in wet conditions.	The quarry is secured with stockproof fencing and security gates at the entrance, and CCTV in operation.	Low
Local human population and the environment.	Arson and/ or vandalism causing the release of polluting materials to air (smoke or fumes) and firewater or spillage of polluting liquids to water or land	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters or arsonists/ vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from and via surface water drains and ditches.	Low	Medium	Low	Permitted waste types are inert so very low-risk of combustion. Site machinery and fuels and oils are more of a risk but quantities would typically be low.	As above.	Very Low
Local human population and local environment.	Accidental fire causing release of polluting materials to air (smoke or fumes), water or land	Respiratory irritation, illness and nuisance to local population. Injury to staff, fire fighters. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from and via surface water drains and ditches.	Low	Medium	Low	Permitted waste types are inert so very low-risk of combustion. Site machinery and fuels and oils are more of a risk but quantities would typically be low.	Fuel tanks banded. Any spillage cleared immediately with absorbent material.	Very low
Internal to quarry	Slope failure	Injury to site staff/visitors, damage to nearby property	None	Low	High	Medium	Quarry sides constructed to be stable.	Regular inspections to ensure side slopes and stockpiles are stable. Stockpiles located to minimise the risk to workforce.	Low
All surface waters close to and downstream of site.	Spillage of liquids, including oil	Acute effects: fish and invertebrate kill.	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Medium	Medium	Waste types are solid. Potential for spillage from any fuel and oil storage for machinery or directly from machinery operating on the site.	Fuel tanks banded. Any spillage cleared immediately with absorbent material.	Low

Data and information				Judgement			Action (by permitting)		
Receptor	Source	Harm	Pathway	Probability of exposure	Consequence	Magnitude of risk	Justification for magnitude	Risk management	Residual risk
What is at risk? What do I wish to protect?	What is the agent or process with potential to cause harm?	What are the harmful consequences if things go wrong?	How might the receptor come into contact with the source?	How likely is this contact?	How severe will the consequences be if this occurs?	What is the overall magnitude of the risk?	On what did I base my judgement?	How can I best manage the risk to reduce the magnitude?	What is the magnitude of the risk after management? (This residual risk will be controlled by Compliance Assessment).
All surface waters close to and downstream of site.	Leachate from waste and contaminated rainwater run-off from waste e.g. suspended solids	If waste contaminated water is washed off site it may contaminate watercourses and natural habitats leading to chronic effects; and deterioration of water quality.	Surface waters, leachate from infiltration through the waste	Medium	Medium	Medium	Permitted waste types are inert so any waste washed off site will not be chemically hazardous however they could cause increased suspended solids in local watercourses. It will also reduce water quality and may smother fish breeding grounds and invertebrate populations. The waste will not produce liquid in itself but rainwater percolating through the waste will produce a waste leachate which should still be very low in contamination.	Strict compliance with waste acceptance criteria. These inert materials will pose no risk to groundwater.	Low
Groundwater	Leachate from waste and contaminated rainwater run-off from waste e.g. Suspended solids	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Medium	Medium	Medium	Only naturally occurring inert material excavated from the site and imported inert wastes will be deposited at the site so any waste should not contain hazardous substances or non-hazardous pollutants in quantities that pose a risk to groundwater.	Site not within a groundwater source protection zone. Strict compliance with waste acceptance criteria. These inert materials will pose no risk to groundwater.	Low
Protected nature conservation sites - European sites and SSSIs.	Dust, noise, contaminated run-off leachate etc	Harm to protected sites through contamination, smothering, disturbance etc.	Any	Low	Medium	Medium	Emissions to air may cause harm to and deterioration of nature conservation sites. Vehicles moving on and around site causing disturbance through noise. Potential for run-off and siltation of habitats etc.	The nearest designated sites are Caerwys Tufa SSSI 160m east, Coed Trefraith SSSI 1km northeast, Ddol Uchaf SSSI 1.5km east. Ancient Woodland sits immediately northeast and along the southwest boundary. Y Ddol Uchaf is approximately 3km east of the site. Wind direction is predominately from the South/Southwest. Strict management plans and procedures in place (such as Dust Emissions Management Plan, Waste Acceptance Procedures. Breedon Trading and Maes Mynan are ISO14001:2015 Certified).	Low



## Appendix B: Environmental Management System

## Environmental Management System – Maes Mynan

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### **ISO 14001 Accreditation**

Maes Mynan Quarry is accredited with ISO14001 (*Breedon Trading Ltd ISO14001EMS Maes Mynan Page 24*)

### **EMS Management System**

Breedon Trading Ltd has a robust EMS management system which includes internal audits conducted by suitably competent Internal auditors, an internal documented IMS system and accreditation to ISO9001 and 14001. The internal documented system includes NC management tools and internal IMS procedures.

For the purpose of this permit application, the most relevant of our internal procedures are:

- GES091 Control of Permits and Site Documentation
- GES-02 Environmental Aspects and Impacts Assessment Standard
- GES-03 Water Management Standard
- GES-04 Waste Management Standard
- GES-06 oil Liquid Fuel and Chemical Storage
- GES-08 Environmental Noise dust and Air Management
- GES-09 Responsible Sourcing of Constituent Materials
- IMS-13 Emergency Preparedness and Response Standard

### **Policies**

Breedon Trading Ltd also have number of Policies relevant to the permit application: the Circular Economy, Environment Policy, Sustainability Policy, Energy and Carbon.

An overview of Breedon Groups HSE Management System is shown below:

# Breedon Group HSE Management System



## SUSTAINABILITY POLICY

HEALTH, SAFETY & WELLBEING POLICY	ENVIRONMENT POLICY	QUALITY POLICY	DIVERSITY & INCLUSION POLICY	SOCIAL RESPONSIBILITY POLICY	ENERGY & CARBON POLICY	CIRCULAR ECONOMY POLICY	BIODIVERSITY POLICY
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## Integrated Management System Documents (IMS)

IMS-01 Assessment of Risk and Opportunity	IMS-02 Objectives Targets and Programme	IMS-03 Communication and Consultation	IMS-04 Audit	IMS-05 Non Conformance Corrective and Preventive Actions	IMS-06 Management Review	IMS-07 Document Control and Record Storage	IMS-08 Management of Change	IMS-09 Responsibilities and Roles	IMS-10 Legal Compliance Checking	IMS-11 Incident Reporting & Investigation	IMS-12 Visual Felt Leadership	IMS-13 Emergency Preparedness and Response	IMS-14 Receipt Handling Storage of Raw Materials
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## Group Health Standards (GHS)

GHS-01 First Aid	GHS-02 Noise at Work	GHS-03 Vibration at Work	GHS-04 Dust at Work	GHS-05 Display Screen Equipment
GHS-06 Mental Health	GHS-07 Epidemic Response	GHS-08 Home Working	GHS-09 Stress Management	GHS-10 Health Surveillance

## Group Environmental Standards (GES)

GES-01 Control of Permits and Site Documentation	GES-02 Environmental Aspects and Impact Assessment	GES-03 Water Management	GES-04 Waste Management	GES-05 Carbon and Energy Management
GES-06 Oil Liquid Fuel and Chemical Storage	GES-07 Biodiversity	GES-08 Environmental Noise, Dust and Air Management	GES-09 Responsible Sourcing of Constituent Materials	

## Group Safety Standards (GSS)

GSS-01 Risk Assessment	GSS-02 COSHH	GSS-03 Control of Contractors	GSS-04 Site Induction	GSS-05 Guarding	GSS-06 Isolation and LOTOTO	GSS-07 Working at Height
GSS-08 Fire Management	GSS-09 Permits to Work	GSS-10 Lifting Equipment	GSS-11 Electrical Management	GSS-12 Working in Confined Spaces	GSS-13 Asbestos	GSS-14 Control of Legionella
GSS-15 Manual Handling	GSS-16 Management of Static Plant	GSS-17 Structural Inspections	GSS-18 Pressure Systems	GSS-19 Management of Mobile Plant	GSS-20 Site Traffic Management	GSS-21 PPE
GSS-22 Gas Arc Welding and Gas Cutting	GSS-23 Explosives	GSS-24 Geotechnical	GSS-25 Drugs & Alcohol	GSS-26 Hot Work	GSS-27 CDM	GSS-28 Ionising Radiation
GSS-29 Lone Working	GSS-30 NOT CURRENTLY USED	GSS-31 Shared Site Management	GSS-32 Working on Rail	GSS-33 Closed site Management	GSS-34 Excavation & Buried Services	GSS-35 Abrasive Wheels
					GSS-36 Traffic Management for Highways	GSS-37 Occupational Road Risk



## Appendix C: Dust Emissions Management Plan



# Dust Emissions Management Plan Maes Mynan Quarry Breedon Trading Limited

Document Reference: 361/2--Dust Management Plan R1.0



# Minerals Waste Environment

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## 1.0. General

- 1.1. This Dust Emissions Management Plan supports the recovery permit variation on behalf of *Breedon Trading Ltd.* at Maes Mynan Quarry, Mold, Clwyd ('The Site') at grid reference SJ 12218 71975.
- 1.2. This document outlines the procedures to be implemented in order to assess and minimise the potential impacts from dust produced by The Site and the control measures in place to mitigate the risk.

## 2.0. Sources, Releases, and Impacts

- 2.1. The plan reference: *361/2-1* identifies The Site's location and boundary for the proposed recovery operation.
- 2.2. Any potential dust emissions are limited to the following activities:
- Transporting materials / site vehicles travelling along internal haul roads.
  - Unloading of materials.
  - Stockpiles of material stored on The Site.
  - Emplacement of waste and restoration materials.
- 2.3. The pathway for dust would be through emissions to air. The nearest sensitive receptors are Caerwys Tufa SSSI 160m east, Coed Trefraith SSSI 1km northeast, Ddol Uchaf SSSI 1.5km east, and Ancient Woodland immediately northeast and along the southwest boundary
- 2.4. The following Public Rights of Way are in close proximity to the site:
- Footpath 402/3A/100 runs along the northwest corner of the site.
  - Footpath 402/1/120 is approximately 140m west of the site.
- 2.5. The nearest residential properties are approximately 60m southeast (separated by woodland) and 160m southwest (separated by fields and the A541). Holiday park 160m west of site (separated by HGV storage yard) and transport lodgings within the industrial park immediately adjacent to the west.

- 2.6. Historical data taken from a nearby weather station to The Site<sup>1</sup> shows that the prevailing wind is predominately from the south-southwest (Figure 1). It is therefore highly likely that, should dust be mobilised to air and leave the site boundaries, any dust would be blown away from the nearest sensitive receptors, namely the residential properties, light industry, and lodgings, Caerwys Tufa SSSI and Ancient Woodlands. Nevertheless, mitigation measures are proposed, as described in section 3.0.

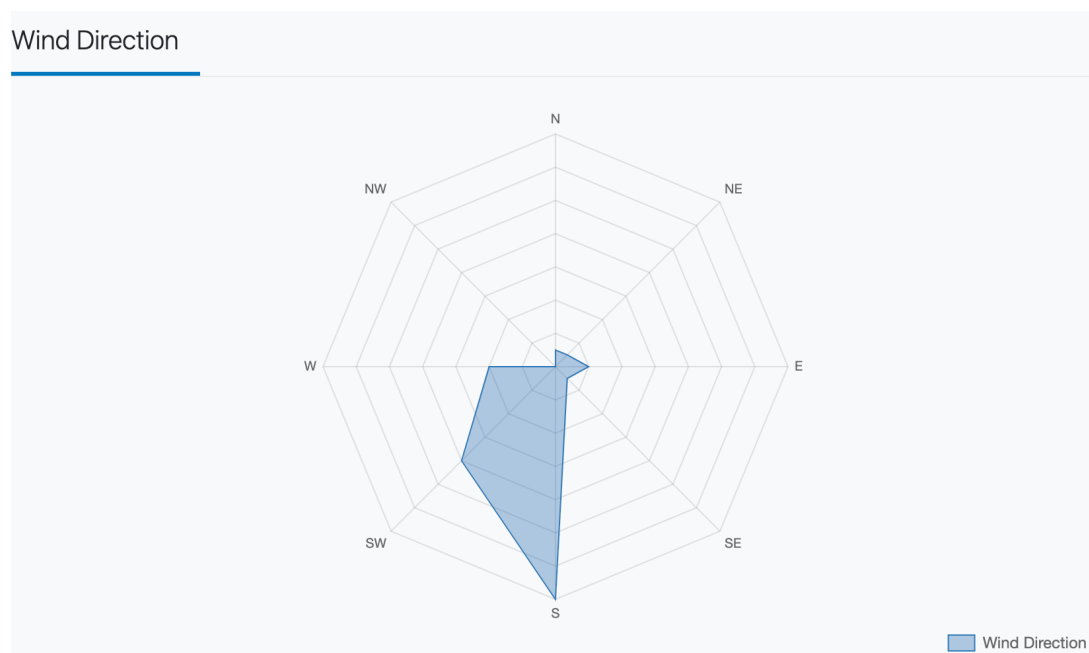


Figure 1: Wind rose indicating the prevailing wind directions for Rhyl (the closest weather station to the site) between 01/01/2012 and 31/12/2022.  
Source: [Meteostat](https://meteostat.net/en/place/gb/caerwys?s=03313&t=2012-01-01/2022-12-31)

### 3.0. Dust Control Measures

- 3.1. A water bowser will be available on site for dust suppression in all climatic conditions. A road-sweeper is also available at The Site that, whilst primarily for ensuring mud is not deposited onto the highway, would also be used to remove and / or dampen any dry deposited materials on the tarmac areas of The Site's

<sup>1</sup> <https://meteostat.net/en/place/gb/caerwys?s=03313&t=2012-01-01/2022-12-31>

entrance.

3.2. A series of dust mitigation measures are implemented at the discretion of the Site Manager and as Conditioned by Planning Application ref: 054707(Conditions 14 and 15) to ensure dust emissions are controlled as far as is practically possible.

3.3. The measures include:

- 10mph speed limit for all vehicles travelling through The Site.
- A wheelwash has been installed for vehicles exiting The Site.
- Sheeting of vehicles transporting potentially dusty loads to the site, and all vehicles visually inspected upon entering and leaving The Site.
- The entrance to The Site is comprised of a sealed surface and a road sweeper will be regularly deployed.
- Site layout designed to minimise the transportation of material around The Site, and all other site haulage roads shall be maintained to a good condition to reduce dust emissions.
- Use of mobile bowser and water sprays to damp down stockpiles; vehicle running surfaces and vehicle loads to prevent excessive dust formation, especially during dry and windy conditions.
- Cleaning of any spillages using wet cleaning methods.
- Stockpiles kept to a minimum as operating conditions allow.
- Drop heights always minimised to prevent dust emissions.
- Regular maintenance of mobile plant.
- Exhausts of all new mobile plant introduced to the site to be directed away from the ground.

3.4. During unusually dry and / or windy conditions, and, at the discretion of the Site Manager, stockpiles (or other areas) that are generating dust would be wetted down. This would be carried out as often as is necessary to prevent excessive dust generation. During such exceptional weather conditions, the stockpiles would be wetted down before closing The Site each day, if it is considered that dust could be generated outside of operational hours.

- 3.5. Management will have regard to other dust sources and emissions in the vicinity of The Site (such as the commercial forest to the north, the A541, and agricultural fields to the south<sup>2</sup>), and will take appropriate measures to mitigate the impact of cumulative dust emissions.

#### 4.0. Monitoring

- 4.1. All operational staff, as part of their induction, are made aware of their roles and responsibilities. Site operatives will continuously carry out visual dust emission inspections whilst The Site is in operation and will report to the Site Manager for advice if required. Where, in the opinion of the Site Manager, dust is being generated beyond an acceptable level, mitigation measures would be implemented.
- 4.2. As well as visual monitoring for dust, The Site's boundary would be formally inspected daily to safeguard against material having the potential to cause a nuisance outside of the Site boundary. The site boundaries would be checked visually at least once before operations begin, during operations, and at the close of operations every day, and any mitigation measures required would be implemented immediately to prevent excessive dust being blown across the A500.
- 4.3. Dust emission incidents and any corrective action should be recorded in the site diary. The site diary should record the following:
- Wind strength and direction.
  - Activities being carried out at the time of the incident.
  - Nature of the emission (fine dust, grit, etc.).
  - Extent of emission (density, distance travelled, etc.).
  - Impact on any surrounding receptors.

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<sup>2</sup> This is a non-exhaustive list.

## **5.0. Dust Contingency Measures**

### **5.1. Elevated Dust Issues**

- 5.1.1. Dust issues identified are reported to the Site Manager at the earliest opportunity and an investigation into the source of the elevated dust levels would be carried out at the earliest opportunity and, in any event, within one working day of it being reported. The outcome of the dust investigation and any proposed actions required will be reported in The Site diary and actioned at the earliest possible opportunity.
- 5.1.2. Any operational failings would be assessed to consider where retraining of staff may prevent or reduce the likelihood of an incident reoccurring and the retraining would be actioned at the earliest opportunity. Training will be documented in the site diary and a training record created and maintained with appropriate review dates specified.
- 5.1.3. Any dust monitoring that may be required as part of an investigation will be carried out by a suitable qualified consultant. The Site Manager will inform the Mineral Planning Authority/NRW, where necessary, during / after the process following an elevated dust issue complaint.

### **5.2. Reporting Measures**

- 5.2.1. Any complaints or elevated dust issues will be recorded in the site diary.

## **6.0. Emergency Plans**

- 6.1. An emergency with regards to dust management would be the loss of control of dust emissions which could have an unacceptable impact on the identified sensitive receptors.
- 6.2. If an event is considered an emergency, the Site Manager would immediately assess the situation and a decision would be made as to whether the site should suspend operations until the elevated dust issue is controlled. The measures required would be considered on a case-by-case basis. Operations would not be

restarted until an investigation into the cause of the emergency is completed, and any required operational or mitigation measures have been altered or updated.

**6.3. Dust Complaint Procedure**

6.3.1. Any complaints follow the operator's complaint procedure and are recorded in the site diary. An investigation into the complaint will be actioned within one working day of receipt unless further information is required.

6.3.2. An investigation will be carried out into the cause for the complaint and the complainant is contacted (where requested) with the outcome of the investigation and the action taken to prevent further incidents.

6.3.3. Management Plans should be reviewed following the receipt of complaints.

**7.0. Responsibilities and Review**

7.1. It is the responsibility of the Site Manager to oversee the operations on site and to be sufficiently trained and familiar with the management systems at The Site. The Site Manager will have the responsibility of ensuring that appropriate control measures are in place to reduce the potential for dust impact. Regular meetings will be held to discuss ongoing and planned operations that have the potential to generate elevated dust emissions.

7.2. The Dust Mitigation Scheme and associated control measures are reviewed on an annual basis and / or following a complaint or elevated dust issue.

**8.0. Summary**

8.1. Whilst it is considered unlikely that operations at The Site would give rise to unacceptable dust emissions, particularly beyond The Site's boundaries, a range of appropriate mitigation measures are proposed to control dust emissions if considered necessary.