



Pode Hole Inert Recovery Site

Environmental Permit Application

Dust Management Plan

November 2019

Prepared on behalf of Mick George Limited





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1.0 Introduction

1.1 Regulated Facility Details

Site Details

- 1.1.1 This section of the Environmental Recovery Permit Application corresponds to Section 3 of Part B4 of the Environmental Permit Application forms and specifically details the operating and management procedures that will be in place at the site.
- 1.1.2 This Environmental Permit Application has been prepared by WYG on behalf of the Operator, Mick George Limited (Mick George).

Site Classification

- 1.1.3 The regulated facility is an inert recovery site.

Site Location, Boundary and Site Security

- 1.1.4 Access to the site is achieved directly from the A47 The Causeway via an established access point which benefits from appropriate visibility splays constructed to modern standards and a right turn lane into the site.
- 1.1.5 The location of the application site is shown on Drawing Number M15.137(a).D.001. The immediate surroundings of the site comprise agricultural land to the north, east and south; the nearest being Pode Hole Farm, located immediately to the north east of the site.
- 1.1.6 Another farm is located opposite the site beyond the A47 and another to the west of Willow Hall Lane close to the south west corner of the Site. Directly to the east of the site is the Scheduled Ancient Monument of Bar Pastures, an Iron Age/Roman settlement. This will be protected from the quarry by a 20m stand-off and a temporary 3m high bund.
- 1.1.7 The site is not located within an Air Quality Management Area.
- 1.1.8 Site gates and perimeter fencing are inspected on a daily basis. Any identified damage to the fence or gates that could prejudice the site security is recorded and temporarily repaired as necessary before the end of that working day. Permanent repair or replacement will be undertaken as soon as practicable.

Site Context

- 1.1.9 The application site is situated at Pode Hole Quarry, which is located to the south of the A47,

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west of the village of Thorney and approximately 5 kilometres west of Peterborough at Grid Reference TF 26170 03453. The site location and the environmental permit boundary is shown on Drawing Number M15.137(a).D.003.



2.0 Dust Sensitive Receptors

2.1.1 Receptors within 1km of the proposed application boundary, including those identified in the Nature and Heritage Screen, have been listed in Table 1 and are shown on Drawing Number MGL/A114947/REC/01 - Indicative Restoration Scheme. The main pathway for the identified sources will be the atmosphere and as such, atmospheric conditions can affect dispersion rates and hence potential risk. As a result, the location of each receptor in relation to the site may influence the potential impact of the risk, as summarised in Table 1.

Table 1: Location of potential receptors in relation to the proposed activity

ID	Receptor	Direction from Operational Area	Minimum Distance from the Permit Application Boundary (approx. m)
Designated ecological habitats/sites of geological importance e.g. Ramsar, SAC, SPA, SSSI, LNR, NNR, LWS			
1	Eye Green LNR	NW	1,250
Domestic Dwellings			
2	Bar Pasture Farm/ Stables	E	50
3	Willow Hall	S	525
4	Priors Farm	S	770
5	Pasture House Farm	N	600
6	Causeway Toll Farm	N	500
7	Hayne's Farm	NW	620
Commercial and Industrial Premises			
8	Biffa Eye Landfill	SW	260
Highways or Minor Roads			
9	A47	N	460
10	Willow Hall Lane	E	50
Scheduled Monuments / Listed Buildings;			
11	Iron Age & Roman settlement at Bar Pastures	E	20
12	Willow Hall - Grade II Building	S	525
13	Priors Farmhouse - Grade II Building	S	770
14	Bowl barrow	E	760
15	Two bowl barrows		1100
Priority Habitats			
16	Priority Habitat Inventory – Traditional Orchard	S	560
17	Priority Habitat Inventory – Deciduous Woodland	NNE	800
18	Priority Habitat Inventory – Deciduous Woodland	SW	1140
Sensitive land uses e.g. farmland, allotments, commercial fish farms			
19	Arable farmland	N, E and W	20
Surface Water e.g. rivers and streams			
20	Cat's Water Stream	W	50
Groundwater (sensitivity)			
With reference to the Multi Agency Geographic Information for the Countryside's (MAGIC) website under the Groundwater Vulnerability Map, the site is situated within an area of Minor Aquifer High vulnerability but does not lie in a Groundwater Source protection Zone. However, in terms of aquifers, the MAGIC website shows that the site doesn't overlie an aquifer in either the bedrock or the superficial deposits.			

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NB: The origin of the wastes must be known and they will have low contents (<5% by mass per load of other types of materials (like metals, plastics, soil, organics, wood, rubber, etc)).

2.2 Climate

Rainfall

2.2.1 Rainfall data is available from a rain gauge at Monks Wood, located approximately 12km south east of the site shown on the Met Office website (Met Office, 2019) from 1981 to 2010 with average monthly rainfall summarised in Table 2 below.

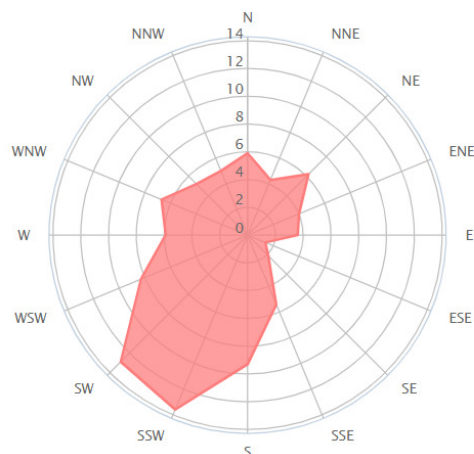
Table 2: Monthly Rainfall Data from Monks Wood (1981 - 2010)

Month	Average Rainfall mm (1981 – 2010)
January	47.0
February	35.0
March	40.1
April	47.0
May	47.9
June	54.1
July	48.3
August	51.7
September	53.3
October	60.2
November	54.2
December	47.1
Annual (Average)	585.8

Wind Rose

2.2.2 The wind rose data, based on findings recorded at Peterborough (located approximately 6km west of the site) taken from www.windfinder.com shows that for the period of May 2013 and January 2019, the prevailing wind direction is from the south west (SW).

Wind direction distribution in %



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3.0 Operations

Waste Types and Quantities

- 3.1.1 The waste codes to be taken by this site are identified by the Environment Agency as suitable for use in the restoration of mineral workings and as general fill material (Environment Agency Guidance: Waste Recovery Plans and Permits, October 2016). The proposed waste types are detailed in Table 3 below and are the same as those given in the agreed Waste Recovery Plan (Appendix E of this application):-

Table 3: Permitted Waste Types

EWC Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS
01 04	Wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clays
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOILS FROM CONTAMINATED SITES)
17 01	Concrete, bricks, tiles and ceramics
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 05	Soil (including excavated soil from contaminated sites) soil and dredging spoil
17 05 04*	Soil and stones other than those mentioned in 17 05 03
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION / INDUSTRIAL WASTE
19 12	Wastes from the mechanical treatment of wastes
19 12 09	Minerals (for example sand, stones)
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES INCLUDING SEPARATELY COLLECTED FRACTIONS)
20 02	Garden and park wastes
20 02 02	Soil and stones



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NB: The origin of the wastes must be known and they will have low contents (<5% by mass per load of other types of materials (like metals, plastics, soil, organics, wood, rubber, etc)).

- 3.1.1 Sand and gravels are currently extracted from the quarry by Aggregate Industries. The estimated total void that will be available for filling is 1.98 million tonnes.

Final Landform and After Use

- 3.1.2 As detailed on the restoration scheme (Drawing Number 1660 – 135 – Overall Restoration Plan) the site will be restored to agricultural use.



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4.0 Dust and Particulate Management

4.1 Responsibility for the Implementation of the Dust Management Plan

- 4.1.1 The Site Manager will be responsible for the implementation of this Dust Management Plan. All site staff will receive instructions on how the plan is to be implemented during tool box talks on site.
- 4.1.2 A review of the plan will be undertaken every 12 months to ensure that it is fit for purpose and meets the requirements of current guidance.

4.2 Sources and Control of Dust

- 4.2.1 The sources and control measures for dust emissions are provided in Table 4 below.

Table 4: Dust Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed?			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of Exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains? The balance of probability and consequence.
Dust emissions from vehicle movements	Occupiers of domestic dwellings listed in Table 1 above. Occupants on recreational areas identified in Table 1. Local Wildlife Sites identified in Table 1. Priority habitats identified in Table 1.	Atmosphere	The site will benefit from an operational wheel wash which is used by HGV's before they leave the site. This facility will continue to be utilised as a result of this variation. Wastes being delivered will be covered or sheeted to prevent the emission of dust. All vehicle drivers will comply with the speed limits within the site and on the access roads. The Site Manager will undertake a daily visual assessment of dust	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions should prevent this happening.	Local nuisance Potential respiratory health risk to public and staff. Smothering.	Not significant.

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	Areas of protected species identified in Table 1.		<p>levels and all site operatives will be vigilant and report any problems to the Site Manager.</p> <p>If necessary, a road sweeper will be contracted to clean the site access road where vehicles exit the site</p> <p>The site will also benefit from a water bowser which is used to suppress dust on the haul roads in particular.</p>			
Dust generated during loading/unloading of waste	<p>Occupiers of domestic dwellings listed in Table 1 above.</p> <p>Occupants on recreational areas identified in Table 1.</p> <p>Local Wildlife Sites identified in Table 1.</p> <p>Priority habitats identified in Table 1.</p> <p>Areas of protected species identified in Table 1.</p>	Atmosphere	<p>The loading/unloading of wastes will be undertaken in a controlled manner to keep dust emissions to a minimum. Extra care will be taken with the deposit of waste during periods of prolonged dry weather or high winds.</p> <p>The Site Manager will undertake a daily visual assessment of dust levels and all site operatives will be vigilant and report any problems to the Site Manager.</p>	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions should prevent this happening.	<p>Local nuisance</p> <p>Potential respiratory health risk to public and staff.</p> <p>Smothering</p>	Not significant due to management techniques employed.

4.3 Dust Monitoring

- 4.3.1 All site personnel shall be trained as to the potential sources and effective mitigation of dust.
- 4.3.2 Daily visual inspections will be conducted within the site and on the local road network by the site personnel and especially during dry windy conditions to ensure that any dust sources are identified and dealt with promptly. All staff will remain vigilant and be required to identify when potentially dusty conditions are occurring on site. In the event that visible dust is being generated from the site activities, the remedial measures identified in Table 4 will be implemented.



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- 4.3.3 In the event that dust emissions cannot be controlled, activities on site will cease until such point as prevailing conditions change or a more permanent dust control measure has been implemented.
- 4.3.4 A complaints log will be held on site. In the event of receiving a dust complaint, the name and location of the complainant, the nature of the dust related complaint, the site activity and prevailing weather conditions at the time of the complaint shall be noted.
- 4.3.5 The site manager shall investigate the complaint and take any remedial action which is deemed appropriate.



5.0 Reporting and Complaints Procedure

5.1 Purpose of Complaints Procedure

- 5.1.1 A Dust Management Plan should show how the operator will respond to complaints. Any complaints should be investigated promptly and appropriate remedial action should be taken. The complainant and anyone else likely to be affected should be informed of any action taken in response to the complaint.
- 5.1.2 A procedure has been developed (see Table 5 below) to ensure that complaints will be handled by Mick George appropriately and consistently and to reassure the Environment Agency and the public that any of their concerns will be acknowledged and acted upon where appropriate. The procedure will be reviewed on an annual basis or in the event of any significant dust issues. Mick George has its own Particulate Matter document which is part of its EMS which is shown in Appendix A.

5.2 Complaints Reporting Route

- 5.2.1 In order to ensure that members of the public are easily able to report any complaints relating to dust emissions from the site, there will be a display board at the site entrance which details the site name, the permit number, the Environment Agency's contact details and Mick George contact details. By providing contact details for the EA as well as the operator, this ensures that the member of public can report their complaint and be confident that it will be received by the appropriate party even if they feel uncomfortable discussing directly with the operator.

5.3 Complaints Records

- 5.3.1 Auditable records will be kept of any complaints made and the investigations undertaken. This will provide an ongoing record of the causes incidents which will enable Mick George to identify any patterns which would prompt a review in dust management procedures and control measures.

Figure 1: Reporting Route

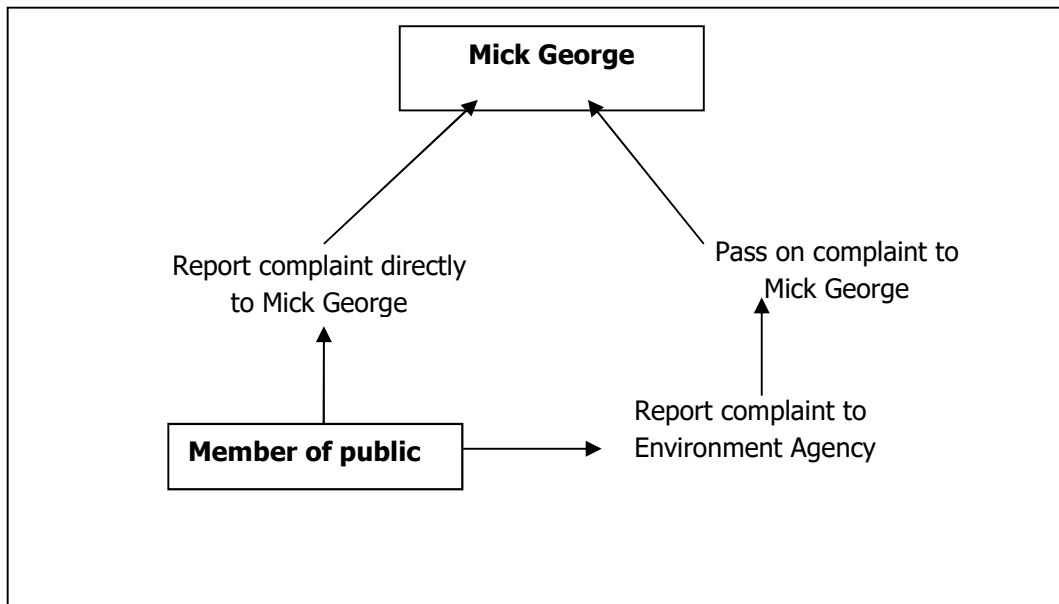


Table 5 Complaints Procedure

Action		Person responsible for ensuring action is carried out	Timescale for Action Completion
1.	<p>The Site Manager will be notified of the complaint and will make the appropriate managerial staff and site operatives aware of the complaint.</p> <p>The Environment Agency will also be notified of the complaint. The complaint shall be formally recorded using the Complaint Report sheet contained within the site’s Environmental Management System</p>	Site Manager	Within two working day of receipt of the complaint.
2.	<p>The complaint will be investigated by:-</p> <ul style="list-style-type: none"> a) Checking the monitoring records to see whether the complaint corresponds to the monitoring records. b) Checking the Site Diary and waste acceptance records to see if any particularly dusty waste was accepted. c) Checking the Site Diary to see whether the complaint corresponds to any operational issues at the site. <p>If the cause of the complaint is established, it will be recorded within the Complaint Record Sheet. If no particular cause is identifiable then this will also be recorded.</p>	Site Manager	Within one working day of receipt of the complaint.



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3.	If a number of complaints are received about a particular incident, then it might be necessary to increase the frequency of dust monitoring.	Site Manager	Within one working day of receipt of the complaint.
4.	The Site Manager will instigate any necessary reviews of procedures and will implement any required changes.	Site Manager	Within seven working days of receipt of the complaint.
5.	If appropriate, the complainant and the Environment Agency will be informed of any corrective actions taken.	Site Manager	Within seven working days of receipt of the complaint.
6.	A follow up audit on the corrective actions implemented shall be undertaken to ensure the complaint is not made again in the future and that the preventive procedure is effective.	Site Manager	Within two weeks of receipt of the complaint.
7.	<p>Once the follow up audit has been completed, the Site Manager will ensure that the complaint and any action taken and the effectiveness of that action are recorded in the Environmental Management System.</p> <p>This record shall also note any amendments to procedures, both environmental and health & safety, which may be required following the investigation. The record shall be kept in the site office at all times or if it is an electronic record it will be accessible from the site.</p>	Site Manager	Within two weeks of receipt of the complaint.



Drawings

M15.137(a).D.001 - Location Plan

M15.137(a).D.003 - Block Phasing Northerly Extension (Permit Boundary and Phasing Plan)

1660 – 135 – Overall Restoration Plan

MGL/A114947/REC/01 – Receptor Plan.



Appendices



Appendix A – MGL Particulate Matter Management and Monitoring document from EMS

Title	Particulate Matter Management and Monitoring		Ref	MGL/LMS-09
Date	July 2019	Document Owner	Technical	
Location			Issue	V 001

PARTICULATE MATTER MANAGEMENT AND MONITORING

1.0 OPERATIONAL MEASURES

1.0.1 As part of the Environmental Permit Application, a Dust Action Plan has been included in the Operating Techniques and approved by the Environment Agency, with mitigation measures detailed below.

1.1 Management Responsibility

1.1.1 The site manager will have responsibility for ensuring that nuisances and hazards arising from the site due to dust are minimised. All site operatives will be vigilant and report any issues directly to the Site Manager who will investigate the issue and instigate any required corrective action.

1.2 Vehicle Speed Limits

1.2.1 Speed limits will be imposed and enforced for all vehicles using the installation to prevent re-suspension and entrainment. The speed limit will be determined by local conditions and may vary.

1.3 Sweeping of the Highway

1.3.1 The highway will be swept with a mechanical road sweeper as and when conditions dictate to minimise emissions of mud and dust.

1.4 Static Water Sprays

1.4.1 Static water sprays are not generally required but may be deployed in specific areas if problems arise.

1.4.2 Use of water to dampen access roads and operational areas can be applied by use of a tractor and bowser unit.

1.5 Seeding of Earth Bunds, Stockpiles and Surfaces

1.5.1 If necessary, bare earth surfaces will be seeded to provide protection against wind erosion and associated dust emissions.

2.0 DUST MONITORING PLAN

2.1 Monitoring of Meteorological Conditions

2.1.1 The site manager will use the Meteorological Office weather forecast to predict weather conditions such as prolonged dry, hot spells, which may rise to high levels of dust, and ensure the necessary precautionary measures are in place.

2.2 Visual Monitoring

2.2.1 All personnel employed on site will undertake visual monitoring for the dust throughout the working day. Any problem that is observed will be reported to the site manager (or the next level of management if they are unavailable), who will be responsible for investigating the cause and implementing any necessary remedial action.

Title	Particulate Matter Management and Monitoring	Ref	MGL/LMS-09	Date	July 2019
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Title	Particulate Matter Management and Monitoring		Ref	MGL/LMS-09
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Location			Issue	V 001

2.3 Quantitative Monitoring

2.3.1 Additional quantitative monitoring at the filling area, the installation boundary or at sensitive receptors will only be carried out in circumstances where complaints have been received, corrective action has not resolved the problem, and where such monitoring will assist in determining the source/cause and what further action may be appropriate.

3.0 DUST ACTION PLAN

3.1 If significant volumes of dust are being noted at the installation during routine visual monitoring, the following action will be taken:

3.2 Dust Generation during Vehicle Monitoring

- Establish cause of emissions;
- If problem is caused by a particular activity, cease until a suitable method statement detailing how the operation will be carried out has been prepared and implemented; and
- If dust is caused by general trafficking and operations, arrange for the area to be sprayed with water.

3.3 Dust Generation during Site Construction

- Establish cause of the problem and implement revised procedures to minimise emissions. This may involve the use of water sprays during excavation activities or the temporary relocation of work away from receptors pending a change in wind direction or other weather conditions

4.0 RECORDS

4.1 A record relating to the management and monitoring of dust will be maintained in the site file. It will include the following details: -

- A record of all dust events including date, time, and cause of the problem;
- A record of all complaints; and
- Details on the corrective action taken and any subsequent changes to operational procedure
- The results from asbestos monitoring undertaken.