

Mayton Wood Quarry

Environmental Permit Application

Dust Management Plan

December 2020

Prepared on behalf of Mick George Limited



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Chris Muir	Alice Shaw	Michael Jones	
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1.0 Introduction

1.1 Regulated Facility Details

Site Details

- 1.1.1 This section of the Environmental 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 landfill.

Site Location, Surrounding and Context

- 1.1.4 The application site comprises three fields to the south of the existing Mayton Wood Quarry site which are currently in agricultural use and are separated by hedgerows.
- 1.1.5 The immediate surroundings of the site are largely agricultural in nature. Ruby Cottage is the nearest dwelling to the site and abuts the western boundary. There are also some isolated dwellings located off Coltishall Road, which forms the western boundary of the site, and off Old Cromer Road to the south east and east of the site. The site is immediately to the west of a former, and now restored, landfill site.
- 1.1.6 The site is located approximately 700m to the west of the hamlet of Little Hautbois in Norfolk. The villages of Buxton and Lamas are located approximately 1km to the north of the site and the civil parish of Horstead and the village of Coltishall are located approximately 2km to the south east of the site. Approximately 12 dwellings are located between 160m and 300m to the west of the site off The Heath and Sandy Lane. The site is approximately 7.5km north of Norwich and is centred at approximate National Grid Reference (NGR) TG 24200 20969.

Site Security

- 1.1.7 The site will be secured from the public highway by substantial lockable gates at the site entrance and all reasonable precautions will be taken to prevent the unauthorised entry of the general public and the unauthorised depositing of wastes. The site will also be contained within a perimeter fence.

- 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.

Report Context

- 1.1.9 The site is not located within an Air Quality Management Area.
- 1.1.10 The planning application for the extension of the Mayton Quarry Site (FUL/2019/0043) included the consideration of dust suppression. Section 3.7 of the Environmental Statement states:-

"The measures for the control of dust on site will comply with any conditions which may be specified by the planning authority, including a dust management scheme. The Site Manager will refer to the management scheme, to determine his response to potential or actual dust emissions, taking into account current and forecast weather conditions and operational plans. Consistent with such advice, Frimstone will apply a pro-active approach to the management of fugitive dust by adopting a Dust Action Plan..."

General matters and the management of the site can affect the likelihood of significant dust emissions. These include:-

- *Provision on site of a pressurised water bowser with adequate year-round water supply to permit an appropriate filling cycle;*
- *High standards of house-keeping to minimise track-out and windblown dust;*
- *Sheeting of loaded HGVs;*
- *A preventative maintenance programme, including readily available spares, to ensure the efficient operation of plant and equipment, including fixed and mobile dust suppression plant, and*
- *Effective staff training in respect of the causes and prevention of dust.*

...dust suppression measures will be implemented to minimise any potential adverse amenity impact and the following measures will be used in order to minimise and control dust nuisance:-

- *All active haul roads will be kept damp as required by motorised spraying units during site operations (i.e. water bowsers);*
- *The direction of exhausts of on-site vehicles will be such that exhaust gases cannot be emitted in a downward direction;*

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- *Drop heights from excavators and loading shovels will be minimised;*
- *Observations will be made of the wind direction, by the Site Manager during quarrying and infilling operations, when it appears from visual inspection that the wind direction is towards dust sensitive locations and such locations are within Critical Dust Control Zones;*
- *Placing dust-generating activities where maximum protection can be obtained from topography or other features."*

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/A116126/REC/01. 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	Disused Gravel Pit LWS	E	125
Domestic Dwellings			
2	Ruby Cottage (Coltishall Road)	W	<10
3	Dwelling adjacent Ruby Cottage (Coltishall Road)	W	<20
4	The Heath (Coltishall Road)	W	<20
5	Heath Cottage (Coltishall Road)	W	75
6	Heath Farm House (Coltishall Road)	W	100
7	Dwellings off The Heath road & Sandy Lane	W	160
8	Three dwellings on Old Cromer Road	E	225
9	West Lodge and Park Lodge (Coltishall Road)	S	230
10	Patches Farm (Carters Lane)	W	400
11	Park Farm (off Buxton Road)	S	450
12	Dwellings on the corner of Sandy Lane	W	495
13	Quastina (Sandy Lane)	W	495
14	Three dwellings on 'The Belt'	E	560
15	Hallstead Farm and Hall Farm (off Old Cromer Road)	E	570
16	Patches Cottage (off Old Church Road)	SW	670
17	The Beeches (Coltishall Road)	N	725
18	Mayton Farmhouse (off Old Cromer Road)	E	780
19	Langmere Farm (Church Lane)	S	825
20	Pinewood (Old Cromer Road)	E	860
21	Four Winds Bungalow (Old Cromer Road)	SW	885
22	Fendyke House (off Little Hautbois Road)	N	975
23	Dwellings in Buxton (village)	N	1000
Commercial and Industrial Premises			
24	Mayton Wood Quarry	NE	<10
25	Mayton Wood Recycling Centre	E	<20
26	Horstead Quarry	SE	435
27	Langmere Lake Lodges	S	750
Schools / Hospitals / Shops/Amenities		N/A	N/A
Roads			
28	Coltishall Road	W	<10

29	Old Cromer Road	SE	<10
30	Sandy Lane	W	<20
Grade II Listed Buildings (G2LB) & Scheduled Monuments (SM);			
31	Mayton Hall G2LB	E	840
32	Mayton Bridge G2LB & SM	E	910
Priority Habitats			
33	Priority Habitat Inventory Deciduous Woodland and National Forest Inventory Broadleaved Woodland	E / SE	<20
34	Priority Habitat Inventory – Lowland Heathland	E	45
35	Priority Habitat Inventory – Good quality semi-improved grassland	SE	100
36	National Forest Inventory – Woodland - Conifer	N	395
Sensitive land uses e.g. farmland, allotments, commercial fish farms			
37	Agricultural Land	N, E, S, W	<20
Public Rights of Way			
38	Frettenham Footpath 2	N/A	Within Site Boundary
39	Frettenham Footpath 1	W	<20
40	Frettenham Footpath 3	E	<20
Surface Water e.g. rivers and streams			
41	Site Drain	N/A	Within Site Boundary
42	Lagoons	N/A	Within Site Boundary
43	River Bure (supports European eel, protected species, and is a migratory route for European eel)	NW	900
Groundwater (sensitivity)			
According to the Multi-Agency's Geographic Information for the Countryside's (MAGIC) website, the site is not situated within a Groundwater Source Protection Zone (GSPZ).			

2.2 Climate

Rainfall

- 2.2.1 Rainfall data is available from a rain gauge at Wellesbourne, located approximately 8km west 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 East Anglia (2000 – 2018)

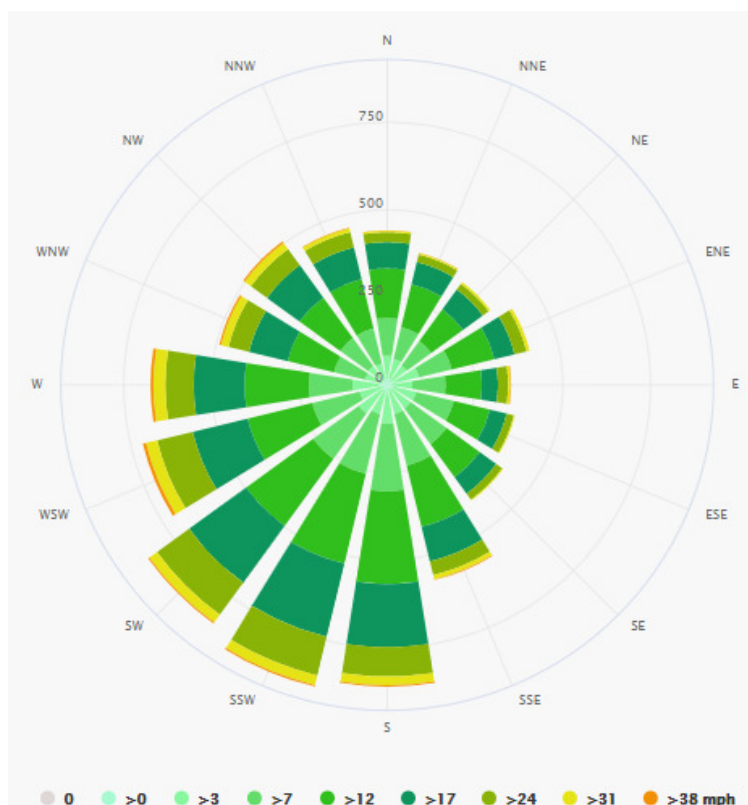
Month	Average Rainfall mm (2000 – 2018)
January	55.03
February	45.73
March	40.14
April	39.55
May	55.23
June	47.35
July	58.91
August	64.30
September	44.32
October	63.97

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November	66.34
December	54.39
Annual Average	635.22

Wind Rose

2.2.2 Wind rose data was obtained for Coltishall (located approximately 3.6km south west from the site) from www.meteoblue.com. The prevailing wind direction is from the south-south west which is shown on the following compass rose from meteoblue.com.



3.0 Operations

3.1 Waste Types and Quantities

- 3.1.1 The proposal entails the importation of inert waste material to help achieve a beneficial restoration of the site, which will be restored to a combination of agriculture, heath and acid grassland and woodland. This is shown in the Restoration Scheme (Drawing Number M35/F/19/04).
- 3.1.2 The site will be restored progressively from north to south, following the restoration of the 'initial restoration area' within the existing Mayton Wood Quarry site. The working of the extension area will be split into 3 operational phases, which will be subdivided into 16 smaller phases as shown in the Working Scheme (Drawing Number M35/F/19/03).
- 3.1.3 A volume of 900,000m³ of imported material (or 1,440,000 tonnes using a conversion factor of 1.6m³/tonne) is required in order to restore the site.
- 3.1.4 Table 3 lists those wastes that will be accepted at the site.

Table 3: Permitted Waste Types

EWC Code	Description	Restriction
10	WASTES FROM THERMAL PROCESSES	
10 11	Wastes from manufacture of glass and glass products	
10 11 03	Waste glass-based fibrous materials	Only without organic Binders
15	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED	
15 01	Packaging (including separately collected municipal packaging waste)	
15 01 07	Glass packaging	
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)	
17 01	Concrete, bricks, tiles and ceramics	
17 01 01	Concrete	Selected C&D waste only*
17 01 02	Bricks	Selected C&D waste only*
17 01 03	Tiles and ceramics	Selected C&D waste only*
17 01 07	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	Selected C&D waste only*
17 02	Wood, glass and plastic	
17 02 02	Glass	
17 05	Soil (including excavated soil from contaminated sites), stones and dredging spoil	
17 05 04	Soil and stones other than those mentioned in 17 05 03 **	Excluding topsoil, peat; excluding soil and stones from

		contaminated sites
19	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	
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 05	Glass	
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS	
20 01	Separately collected fractions (Except 15 01)	
20 01 02	Glass	Separately collected glass only
20 02	Garden and park wastes (including cemetery waste)	
20 02 02	Soil and stones**	Only from garden and parks waste; excluding topsoil, peat.

*Selected construction and demolition waste with low contents of other types of materials (like metals, plastic, soil, organics, wood, rubber etc). The origin of the waste must be known.

- No C&D waste from construction, polluted with inorganic or organic dangerous substances e.g. because of production processes in the construction, soil pollution, storage and usage of pesticides or other dangerous substances etc, unless it is made clear that the demolished construction was not significantly polluted.

- No C&D waste from constructions treated, covered or painted with materials, containing dangerous substances in significant amounts.

Final Landform and After Use

3.1.5 The site will be restored to a combination of woodland, heath/ acid grassland and agriculture as shown in the Restoration Scheme (Drawing Number M35/F/19/04).

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 Site identified in Table 1. Priority habitats identified in Table 1. Areas of protected	Atmosphere	The site will benefit from an operational wheel wash which is used by HGV's before they leave the site. Wastes being delivered will be covered or sheeted to prevent the emission of dust. As shown on the Working Scheme (Drawing Number M35/F/19/03), the site will benefit from a wheel wash which will be located on the access road. This will be used by all outgoing vehicles to minimise the risk of dust to develop. All vehicle drivers will comply with the speed	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.

	species identified in Table 1.		limits within the site and on the access roads. 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. If necessary, a road sweeper will be contracted to clean the site access road where vehicles exit the site The site will also benefit from a water bowser which is used to suppress dust on the haul roads in particular.			
Dust generated during loading/unloading of waste	Occupiers of domestic dwellings listed in Table 1 above. Occupants on recreational areas identified in Table 1. Local Wildlife Site identified in Table 1. Priority habitats identified in Table 1. Areas of protected species identified in Table 1.	Atmosphere	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. 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.	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 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

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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.

- 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 B.

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 odour management procedures and control measures.

Figure 1: Reporting Route

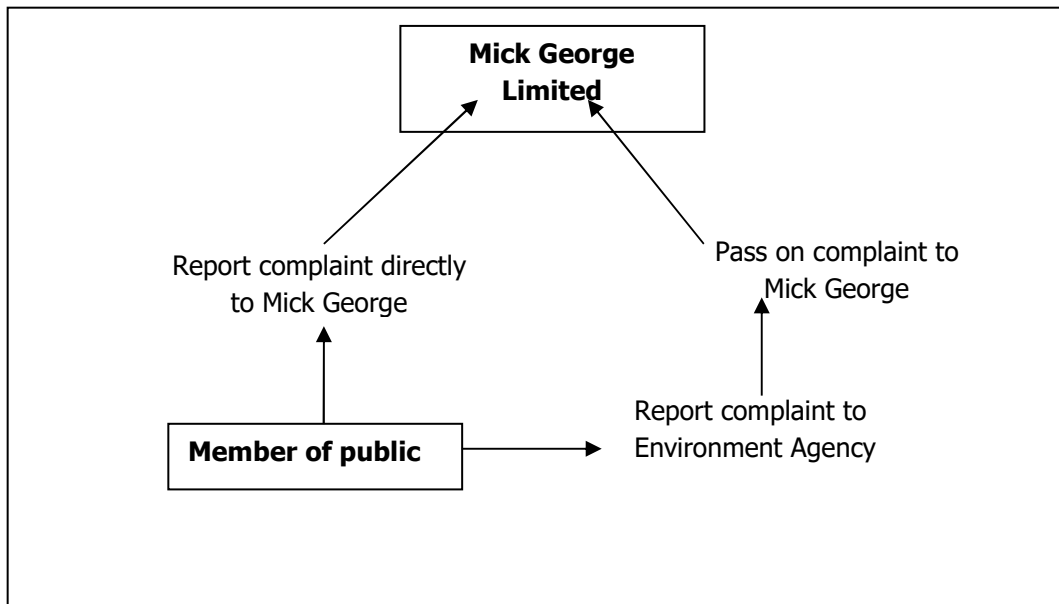


Table 5 Complaints Procedure

	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.
3.	<p>If a number of complaints are received about a particular incident, then it might be necessary to increase the frequency of dust monitoring.</p>	Site Manager	Within one working day of receipt of the complaint.

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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

MGL/A116126/PER/01 - Site Location and Environmental Permit Boundary

M35/F/19/04 - Restoration Scheme

M35/F/19/03 - Working Scheme

Appendices

Appendix A – Environmental Statement Excerpt

Appendix B - MGL Particulate Matter Management and Monitoring document from EMS