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**HELLENS LAND LIMITED**

**NEWBOTTLE STREET, HOUGHTON-LE-SPRING**

**DUST MANAGEMENT PLAN**

**MARCH 2023**



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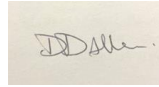
**NEWBOTTLE STREET, HOUGHTON-LE-SPRING**

**DUST MANAGEMENT PLAN**

MARCH 2023

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- Appendix 1 Daily Dust Inspection Sheet
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## 1 INTRODUCTION

### 1.1 Introduction

1.1.1 Hellens Land Limited have commissioned Wardell Armstrong to prepare a Dust Management Plan in respect of the proposed development of a commercial development at Newbottle Street, Houghton-le-Spring.

1.1.2 . The site is located to the south of Newbottle Street (A182), northeast of Houghton-le-Spring town centre, in Tyne and Wear. The National Grid Reference (NGR) for this site is NZ 33812 50382.

1.1.3 This Dust Management Plan provides the appropriate measures to be undertaken during each stage of the development, and sets out dust mitigation measures, dust monitoring regime, action plan and how any complaints are dealt with. This plan forms part of the site's Environmental Management System.

1.1.4 The site setting and sensitive receptors are described in the remainder of Section 1 of this document.

1.1.5 A description of the waste activities on site is provided in Section 2 of this plan.

1.1.6 The dust mitigation measures and dust management are provided in Section 3 of this plan.

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1.1.7 The dust monitoring regime is provided in Section 4 of this plan.

1.1.8 The dust action plan procedures are provided in Section 5 of this plan.

1.1.9 The reporting and complaints procedures are provided in Section 6 of this plan.

### 1.2 Responsibility for Implementation of the Dust Management Plan

1.2.1 All employees and contractors will be familiarised with this DMP, and understand how to follow and implement the plan.

1.2.2 A designated person will be responsible for dust monitoring and reporting.

## 2 SITE SETTING

### 2.1 Location

2.1.1 The proposal is for a proposed development of a commercial development at Newbottle Street, Houghton-le-Spring. The site is located to the south of Newbottle Street (A182), northeast of Houghton-le-Spring town centre, in Tyne and Wear. The National Grid Reference (NGR) for this site is NZ 33812 50382.

2.1.2 The surrounding areas of the site mostly comprise of mixed commercial and residential developments. To the east of the site there is a quarry, Houghton Hill and open fields. Vehicular access to the site is accessible via Newbottle Street behind a fuel station.

2.1.3 The site for the scheme is an irregular, elongated plot orientated roughly northwest to south east, covering an area of approximately 3.35 hectares.

2.1.4 The site lies on an historical landfill site, formally known as Houghton Colliery, and it is understood that the historic landfill site was associated with the reclamation of the former colliery and the landfilling of inert waste. The site was operated by the City of Sunderland, and the licence was surrendered on the 7<sup>th</sup> April 1999.

2.1.5 As a result of the former use of land, the made ground is classified as waste, and therefore a permit is required for the cut and fill operation and allow the reuse of materials on site (permanent deposit of material).

2.1.6 Data from Defra UK Air Information Resource<sup>1</sup> shows that the site is not within an Air Quality Management Area for PM10 (particles less than 10µm in diameter).

### 2.2 Sensitive Receptors

2.2.1 Sensitive receptors within a relatively close proximity to the site where the receptor is likely to have human populations for long periods of time or may be environmentally sensitive. The receptors are listed in Table 2.1, with detail of the proximity to the site and the location from the site. The receptors are classified as being one of the following:

- residential (including schools);
- recreational;

<sup>1</sup> <https://uk-air.defra.gov.uk/aqma/maps/>

- medical/healthcare;
- industrial/commercial;
- infrastructure;
- environmental.

Table 2.1: List of Receptors		
Receptor	Distance from Site	Direction
<b>Residential (including schools)</b>		
Grasswell residential area	50m	North
Sunnside residential area	80m	North west
Burnside Primary School	250m	South west
Newbottle Primary School	335m	North
Houses off Brickburn Crescent	100m	South west
<b>Recreational</b>		
Houghton Sports Complex	205m	South
Public Park	165m	South west
Allotments	<10m	South/south west
<b>Medical/Healthcare</b>		
Houghton Primary Care Centre	217m	Southwest
Houghton Rehabilitation Centre	280m	Southwest
Kepier Medical Practice	270m	West
Knights Pharmacy Pennywell	120m	South
<b>Industrial/Commercial</b>		
Jet fuel station	50m	North east
Area of shops	20m	South
Houghton Comrades Club, Tyre Spot, D & J Cars and Commercial, Tan Queen UK	25m	East
Houghton Quarry Landfill Site (managed by Biffa Waste Services)	20m (to site entrance)	East
<b>Infrastructure</b>		
Newbottle Street (A182) Road	<10m	East
Houghton Cut (A690)	330m	East
<b>Environmental</b>		
Deciduous woodland (Priority habitat)	Adjacent to sit boundary (<5m)	South/south west
Moors Burn River	760m	West

- 2.2.2 The surrounding environment to the site is mixed use, with the highest density of receptors to the west and south of the site.
- 2.2.3 A review of wind direction data has been conducted or available data from the closes wind monitoring locations. Using data available from Windfinder.com<sup>2</sup> statics based on observations from the weather station at Newcastle-upon-Tyne Airport, dominant wind direction across a 12 month period average predominantly from the west, as shown in Figure 1. A review of other available data including world-weather.info archive<sup>3</sup> for average wind directions in the area also indicate a predominantly westerly wind direction.

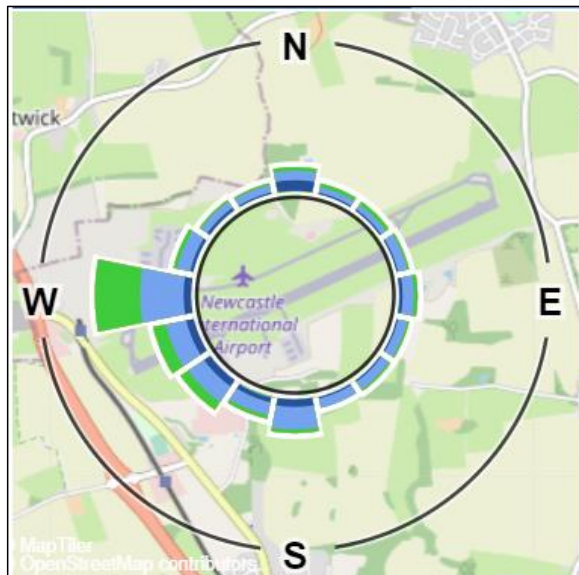


Figure 1: Wind rose indicating average wind direction (source: world-weather information archive).

- 2.2.4 With consideration to the overall wind direction, the nearest receptors most likely to be impacted by fugitive emissions of dust are the commercial properties approximately 25 metres to the east of the site and Newbottle Street.

<sup>2</sup> [Wind & weather statistics Newcastle upon Tyne Airport - Windfinder](#)

<sup>3</sup> [Weather archive in Sunderland \(United Kingdom\). Wind rose in Sunderland \(world-weather.info\)](#)



2.2.5 This Dust Management Plan sets out the mitigation measures which will be in place during the works on site, to mitigate the impact on the sensitive receptors identified in this section.

### 2.3 Off-Site Sources of Fugitive Dust or Particulate Emissions

2.3.1 As detailed in Table 2.1, there are receptors in relatively close proximity to the site. Some of these receptors may also give rise to dust or an increase concentrations of airborne particles and nitrogen dioxide due to exhaust emissions from diesel-powered vehicles. Where there are likely to be particularly high numbers of vehicles, including:

- Jet fuel station to the east of the site;
- Newbottle Street (A182) road to the east of the site;
- Houghton Quarry to the east of the site. Houghton Quarry is a waste management site operated by Biffa (Houghton le Spring). The site entrance to the waste management facility is less than 20m from the entrance to the site.

### 3 SITE ACTIVITIES

#### 3.1 Description of Waste Activities

- 3.1.1 Waste has historically been deposited on site as the land was formally a landfill associated with the colliery soil. Records indicate that the site was also licenced to receive clean hardcore and brick, and excavation wastes containing no biodegradable or soluble chemical material. This is likely to include uncontaminated subsoil, sand, clay, shale or rock.
- 3.1.2 The waste in-situ will be excavated, treated and re-deposited on site to enable the construction of a suitable construction platform in accordance with an approved Remediation Strategy. Treatment of materials on site will consist of sorting, screening and crushing materials to ensure that it is suitable for redeposit (for example, crushing of oversized concrete).
- 3.1.3 As the materials already in-situ on site will be predominantly inert or non-hazardous materials and wastes that typically have potential to generate fugitive dust emissions from the on-site activities (including excavation, screening, crushing, tipping). Therefore, this Dust Management Plan has been prepared to mitigate the risk of dust generation, dust monitoring regime and dust action plan should that be required.
- 3.1.4 Wastes will be temporarily stored in stockpiles on site prior to treatment and after treatment, prior to re-deposit.

#### 3.2 Waste Stockpiles

- 3.2.1 Waste materials will be temporarily stockpiled through the phases of the scheme on site following excavation and pre and post treatment, prior to re-deposit.
- 3.2.2 Waste stockpiles will not be more than approximately three to four metres in height, to avoid the possibility of dusts from waste being carried upwards or swept across by wind. Stockpiles will be graded and dampened down to prevent windblown dust and reduce the risk of run off.
- 3.2.3 Further detail on windspeed monitoring is detailed in section 4.2.
- 3.2.4 Site activities will be carried out in accordance with the Waste Recovery Plan, Remediation Strategy and Environmental Permit.

## 4 DUST MONITORING

### 4.1 Visual Dust Monitoring

4.1.1 The nominated employee(s) shall carry out, as a minimum, one daily visual inspection of the working areas of the site and site access route. The purpose of the visual inspection is to identify any potential dust issues and to undertake mitigation proactively. Records will be kept in the Daily Dust Inspection Sheet (Appendix 1). The visual inspection shall consider, as a minimum, the following.

- The active weather conditions, in particular wind direction and precipitation.
- A 10mph site speed limit is enforced. Signage on the entry gates and in the site will be maintained at all times.
- Current dust generating activities. If a dust issue is identified (e.g. visual airborne dust), reactive measures will be taken as necessary. Increased mitigation will be in line with the measures identified in this document but would as a minimum include increased dampening and frequency of dampening until the issue was rectified.
- Any airborne dust seen to leave the permitted boundary of the site will be reported to the duty manager immediately. The duty manager will investigate the cause and arrange immediate mitigation actions to reduce emissions. This will include; identifying the source of dust, mitigation and undertaking a follow up observation to confirm that there is no longer dust leaving the site.
- Visual inspections are undertaken daily and the site is cleaned based on the findings of the daily inspection. Employees are instructed to be reactive and clean as and when build ups of dirt, mud or dust are evident. Mitigation shall be carried out any time during day-to-day operation, following employees' observations. Materials will be prevented from drying out by periodic dampening activities dependent on the daily circumstances.
- Machinery will be cleaned every 2 weeks.
- Mud accumulation on the site access road will be monitored, and the site regularly cleaned to prevent debris being carried out beyond the site boundary and/or onto the public highway. If required, a road sweeper will be called to and any mud accumulation on the public highway near the site entrance.
- Ensure employees are carrying out the actions outlined in this DMP; and

- Details of daily activities, schedules shall also be monitored and recorded to show the activities that were occurring at the time of the inspection.

#### 4.2 Wind Speed Monitoring

4.2.1 During operational hours, an awareness of meteorological conditions will be maintained.

4.2.2 Prolonged dry periods and moderate to high winds can increase dust generation which may then become airborne and carried on the winds. Dust management procedures will be adjusted to suit the conditions. The prevailing wind is from the west. The methodology outlined below, in Table 4.1, will be adopted during these conditions and further mitigation in the form of dampening will be used should the risk require further action.

4.2.3 The weather forecast will be checked daily and a trigger system will be adopted to identify the conditions during which there is a likelihood of increased risk of wind-blown dust (i.e. predicted periods of dry windy weather). This action will be undertaken at the start of each working day and during the daily visual inspection. The trigger levels are detailed in [Table 4.1](#).

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Wind speed		Precipitation		
m/s	Beaufort Scale	Dry	Showers	Heavy Rain
>5.5	4+ Dust and loose paper raised. Small branches begin to move	Red	Amber	Green
1.6-5.4	2-3 Wind felt on exposed skin. Leaves rustle. Wind vanes begin to move.	Amber	Green	Green
0+1.5	0-1 Smoke drift indicates wind direction. Leaves and wind vanes are stationary	Green	Green	Green

4.2.4 The trigger levels provided in the table above will be interpreted as follows.

- Red: All exposed areas, i.e. stockpiles, will be inspected and treated as necessary in accordance with the measures outlined in this DMP.
- Amber: Loose bare ground will be inspected at regular intervals to establish whether water suppression is necessary (one visual inspection per day is

specified, should there be a need for increased visual monitoring this will be increased).

- Green: Wind-blown dust not likely to occur.

4.2.5 During dry /prolonged windy weather, i.e. 'red' conditions as defined above, if any activities are identified as causing or likely to cause visible emissions away from the site boundary, or if abnormal emissions or extreme weather conditions are observed, the Site Manager will immediately modify, reduce or suspend those activities until either effective remedial actions can be taken or weather conditions improve.

#### 4.3 Record keeping

4.3.1 The results of the visual inspection shall be recorded in an Environmental Logbook which will be kept on site at all times. The logbook will be made available to the Environment Agency (or other regulatory body) upon request. The Logbook will include completed Daily Dust Inspection Sheets (Appendix 1).

4.3.2 Information which should be recorded on the Daily Dust Inspection Sheet, and includes quality assurance details (date, time, signature of completion and inspector), meteorological conditions and the results of the visual check and actions taken if necessary, and any information relating to dust management implemented that differs from day-to-day operation.

## 5 DUST MITIGATION

- 5.1.1 Measures will be taken on site to mitigate the generation of dust and are outlined in this section.
- 5.1.2 The site has two metre high, close board timber fencing along the eastern site boundary with Newbottle Street. Further solid fencing will be installed along the site perimeter which will have debris netting attached to the fencing to prevent larger debris being windblown.
- 5.1.3 Drop heights from the movement and handling of materials will be minimised as far as possible, to prevent dust generation.
- 5.1.4 Maintenance and repairs of equipment and plant on site will be carried out as soon as possible by a suitably qualified person, following the identification of any issues.
- 5.1.5 Vehicles, plant and machinery shall not be left running unnecessarily or longer than required. An anti-idling policy will be maintained on site for the duration of the works.
- 5.1.6 If vehicles are required to remove waste from site, e.g. non-conforming wastes are identified through the excavation works, then the vehicles will be covered with sheeting prior to removal of the waste should the waste appear to be dusty in nature.

## 6 DUST ACTION PLAN

- 6.1.1 If, following visual monitoring or in the event of a complaint received, dust is arising from the on-site activities which is generating outside of the site boundary, the following remedial action will be carried out as appropriate.
- 6.1.2 Should adherence to minimal drop heights for tipping of materials not be sufficient in reducing dust generation, operations will cease immediately, and an investigation will be carried out, to review the site operating procedures.
- 6.1.3 Should the treatment of materials generate dust emissions which appear to be travelling beyond the site boundary, waste treatment activities will temporarily stop and an assessment will be carried out to identify the source of the dust emissions and whether any mitigation actions are required. Any action taken will be recorded in the site diary.
- 6.1.4 Mobile bowsers may be considered to be brought onto site to dampen down stockpiles of materials stored temporarily or through the movement of materials. This may be particularly pertinent during periods of prolonged dry weather.
- 6.1.5 The Environment Agency will be informed in the event of a report or complaint of dust being generated outside of the site boundary.
- 6.1.6 The Dust Management Plan will be kept under review to ensure it is adequate in managing fugitive dust emissions arising from site.
- 6.1.7 As waste is to remain on site, the risk of mud being tracked onto roads from vehicles leaving the site is low. However, wheel washing facilities will be available on site and road brushes will be used regularly to supplement the wheel washing. During prolonged periods of adverse weather, the use of the wheel wash and road sweeping will be increased, in accordance with the monitoring regime and/or complaints procedure.
- 6.1.8 Dust suppression measures will be utilised outside of working hours for the site if this is required, specifically the use of a tractor with an attached water bower to suppress dust should assessment of dust emissions indicate that this be required.

## 7 REPORTING AND COMPLAINT RESPONSE

### 7.1 Reporting of Complaints and Engagement with the Community

- 7.1.1 The remediation and development of the land will be of benefit to the local community, with the eventual construction of shops, enhancing the local amenities. Hellens Land Limited are committed to maintaining a good relationship with the local community through the works on site.
- 7.1.2 Members of the public will be prohibited to enter the site for health and safety reasons. However, members of the public may contact the operator or the Environment Agency (or other regulatory bodies) should they wish to, including making complaints.
- 7.1.3 All complaints will be taken seriously and investigated as soon as reasonably practicable by the Site Manager and/or persons responsible on site at the time of the complaint being investigated.
- 7.1.4 In the event that any complaints are received, details of the complaint will be recorded in the Environmental Logbook and potential sources or occurrences on site will be investigated. Records of all complaints and remedial action taken shall be recorded in the Logbook.
- 7.1.5 On receipt of a complaint, the dust complaint log (Appendix 2) will be completed. Details of the complaint will be noted, and an immediate investigation will be carried out. The investigation will identify the potential dust source and the issue will be mitigated as soon as possible.
- 7.1.6 Details of the investigation and any action taken will be reported back to the complainant within one working day by the member of staff who is responsible for complaint handling unless the complainant has chosen to be anonymous or has requested not to be contacted.
- 7.1.7 All complaints would be investigated, and mitigation taken as necessary to resolve the complaint. If a pattern of complaints is evident, such as 3 or more complaints being received within a period of 6 hours, the site tipping operations will cease immediately and will not restart until the situation has been resolved, as demonstrated by the dust inspections.
- 7.1.8 The results of the complaint investigation and the measures taken to resolve the complaint will be made available to the Regulator upon request.



7.1.9 Additional mitigation will be employed as and when necessary to resolve the complaint(s). This will as a minimum include increased frequency of monitoring and suppression at dust-generating sources.

## APPENDICES

**APPENDIX 1**

**Daily Dust Inspection Sheet**

## APPENDIX 2

### Dust Complaint Form

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