



**AN APPLICATION TO TRANSFER AND VARY  
ENVIRONMENTAL PERMIT NUMBER EPR/LB3733AF IN  
RESPECT OF WELLINGBOROUGH RAILHEAD,  
NEILSONS YARD, MEADOW CLOSE,  
WELLINGBOROUGH, NORTHAMPTONSHIRE**

**DUST AND EMISSIONS MANAGEMENT PLAN  
VERSION 1.1**

Report reference: GRS/WE/PF/5732/01/DEMP  
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Baddesley Colliery Offices, Main Road, Baxterley, Atherstone, Warwickshire, CV9 2LE  
Tel. (01827) 717891 Fax. (01827) 718507

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This report has been prepared by MJCA with all reasonable skill, care and diligence, and taking account of the Services and the Terms agreed between MJCA and the Client. This report is confidential to the client and MJCA accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by MJCA beforehand. Any such party relies upon the report at their own risk.

## 1. Introduction

- 1.1** Wellingborough Railhead (the railhead site) is an operational railhead where aggregates are imported by rail, stored and loaded for onward distribution by road. The railhead site is located in a predominately industrial area on the north east outskirts of Wellingborough. The railhead site covers an area of approximately 6 hectares (ha). GRS Rail Services Limited (formerly Northampton Aggregates Limited) have the benefit of Standard Rules Environmental Permit SR2009No6 – inert and excavation waste transfer station with treatment (number EPR/LB3733AF) for an area in the south of railhead site (the site). Environmental Permit number EPR/LB3733AF (the permit) was issued by the Environment Agency on 29 October 2012, is centred approximately at National Grid Reference (NGR) SP 90458 69643 and covers an area of approximately 1.5ha. The approximate boundary of the permit is shown on Figure DEMP 1.
- 1.2** GRS Rail Services together with GRS (Roadstone) Limited are both part of the GRS Group of Companies. It is proposed that the permit is transferred to GRS (Roadstone) Limited and varied to become a bespoke Environmental Permit which, in addition to the operations currently authorised by the permit will also provide for the operation of an incinerator bottom ash aggregate (IBAA) blending facility at the site (the proposed blending facility). The current Standard Rules Environmental Permit provides for the transfer and treatment of up to 250,000 tonnes per annum (tpa) of inert and excavation wastes. The current permit provides the ability to import inert and excavation wastes and treat the waste by manual sorting, separation, screening or crushing of wastes into different components for disposal (no more than 50 tonnes per day) or recovery.
- 1.3** The IBAA activities which will be undertaken at the proposed blending facility will comprise the acceptance, under List of Waste Code (LoW) 191212, of up to 200,000 tpa of IBAA that has been processed elsewhere to meet the BS13242 specification. The IBAA will be stored on site before being blended with primary aggregates or aggregates produced in accordance with the Aggregates Quality Protocol<sup>1</sup>. The IBAA will be blended to form an aggregate output to meet a required specification which

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<sup>1</sup> WRAP (Waste & Resources Action Programme) Quality Protocol for Aggregates from inert waste, end of waste criteria for the production of aggregates from inert waste published on 22 October 2013 (Aggregates Quality Protocol).

will be sent off site for use. Consistent with the inert and excavation waste transfer and treatment operations, processed IBAA will be imported to the railhead site by road and the aggregate product will predominantly be exported from the railhead site by road. It is possible that aggregate product also will be exported by rail. A flow diagram in which the existing and proposed operations at the site is summarised is presented in Section 2.

- 1.4** The layout of the site which includes the area in which the inert and excavation waste transfer and treatment operations are already authorised to be carried out together with the layout of the IBAA proposed blending facility are shown on Figure DEMP 2. The site including the proposed IBAA storage and blending area is located in the open air. Consistent with Standard Rules Environmental Permit SR2009No6 the inert and excavation waste transfer and treatment operations may be carried out on a hardstanding surface. The proposed IBAA storage and blending operations will be carried out on impermeable surfaces with sealed drainage systems. The IBAA storage and blending areas will be delineated on three sides by concrete block walls up to 4m high. In summary the IBAA blending operations will be carried out by loading shovels and the placement in the bays of alternate layers of IBAA and aggregate. Effective dust suppression will be provided.
- 1.5** The purpose of this document is to identify the operations at the site which may have the potential to have an impact on air quality as a result of emissions of particulate matter, to present the details of the operational controls which are implemented to minimise particulate emissions and to describe the monitoring which is carried out to confirm the effectiveness of the management controls.
- 1.6** The DEMP forms part of the environmental management system (EMS) under which the site is operated.
- 1.7** The DEMP has been prepared based on the guidance presented in the relevant sections of the following documents and guidance:
- Environment Agency – Control and monitor emissions for your environmental permit.<sup>2</sup> (the emissions guidance).

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<sup>2</sup> Available at <https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit>. Last updated 24 November 2022. Last accessed 30 June 2023.

- Environment Agency internal guidance template entitled “Dust and emission management plan” (Version 10 dated October 2018).
- Environment Agency guidance ‘Non-hazardous and inert waste: appropriate measures for permitted facilities<sup>3</sup>’ (the Appropriate Measures guidance).

**1.8** The activities with the potential to generate and/or release dust and particulate matter are identified in Section 2 of this document. The locations of potential receptors are identified in Table DEMP 1, are shown on Figure DEMP 1 and are discussed in Section 2 together with the potential pathways for linkage of the sources and receptors.

**1.9** In Sections 3 and 4 of this document the management techniques that are used at the site to minimise the potential for dust and particulate matter emissions from the site are set out and the monitoring undertaken to confirm the effectiveness of the management techniques is specified. In Section 5 details are presented of how GRS will engage with the local community together with details of the procedure for reporting and responding to complaints. An action plan which will be implemented in the unlikely event that there is the potential for a significant emission of dust or particulate matter from the site or if a complaint regarding dust or particulate matter is received is presented in Section 6.

**1.10** The DEMP comprises a living document and will be reviewed on an annual basis as part of the environmental performance audit or as required by the action plan. The review will include consideration of the results of dust and particulate matter monitoring and progress with any improvements that may be identified. A review of the effectiveness of dust and particulate matter monitoring techniques will be undertaken and changes made to monitoring techniques if the review identifies any improvements that can be made.

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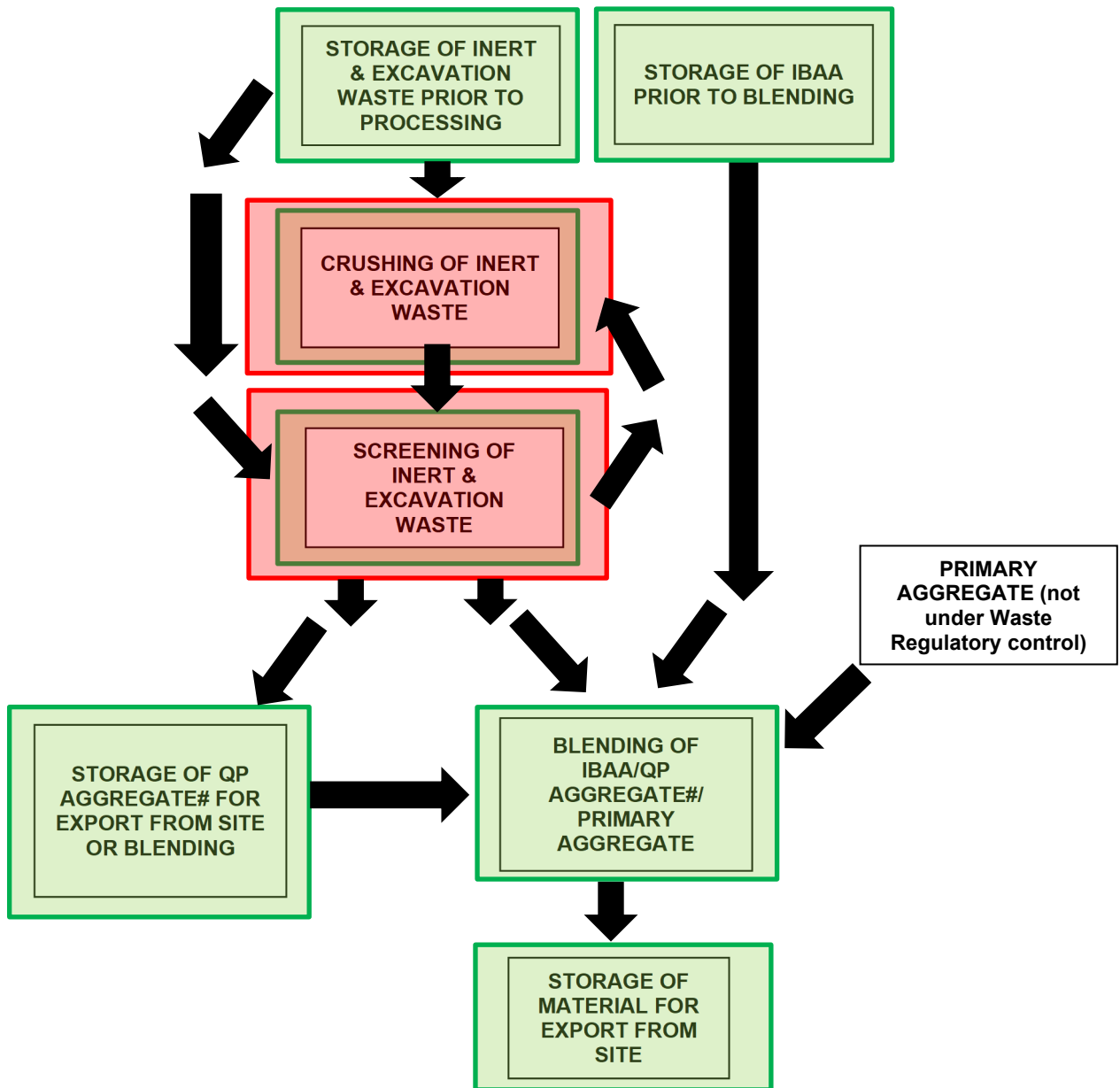
<sup>3</sup> Available at: <https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities>. Last updated 8 December 2022. Last accessed 30 June 2023.

## 2. Operations at Wellingborough Railhead (sources, pathways and receptors)

### Sources

- 2.1** As explained in Section 1 Standard Rules Environmental Permit SR2009No6 provides for the transfer and treatment of up to 250,000 tonnes per annum of inert and excavation wastes. Inert and excavation wastes are stockpiled as necessary at the site and treated which consists of only manual sorting, separation, screening or crushing of wastes into different components for disposal (no more than 50 tonnes per day) or recovery. The IBAA activities which will be undertaken at the proposed blending facility will comprise the acceptance, under LoW 191212, of up to 200,000 tpa of IBAA that has been processed elsewhere to meet the BS13242 specification. The IBAA will be stored on site before being blended with primary aggregates or aggregates produced in accordance with the Aggregates Quality Protocol<sup>1</sup>. The IBAA will be blended to form an aggregate output which will be sent off site for use.
- 2.2** The layout of the site including the area in which the inert and excavation waste transfer and treatment operations are already authorised to be carried out and the layout of the IBAA proposed blending facility is shown on Figure DEMP 2. The site including the proposed IBAA storage and blending area is located in the open air. Consistent with Standard Rules Environmental Permit SR2009No6 the inert and excavation waste transfer and treatment operations may be carried on the hardstanding surface. The area of the hardstanding surface is shown on Figure DEMP 2. Consistent with Standard Rules Environmental Permit SR2009No6, for the inert and excavation waste transfer and treatment operations there are no restrictions where on the hardstanding surface the wastes may be stored or treated. As explained in Paragraph 2.6 all storage and treatment operations are undertaken with dust suppression available, either built into the treatment plant or via suppression using fixed water sprays, a mobile water bowser or manual spraying using hosepipes. The proposed IBAA storage and blending operations will be carried out on impermeable surfaces with sealed drainage systems. The locations of the impermeable surfaces are shown in orange on Figure DEMP 2. The IBAA storage and blending areas will be delineated on three sides by concrete block walls up to 4m high. In summary the IBAA blending operations will be carried out by loading shovels and the placement in the bays of alternate layers of IBAA and aggregate. Effective dust suppression will be provided.

- 2.3** Consistent with the inert and excavation waste transfer and treatment operations, processed IBAA will be imported to the railhead site by road and the aggregate product will be exported from the railhead site by road. It is possible that aggregate product also will be exported by rail. The waste types currently and proposed to be accepted at the site will be specified in the permit and are reproduced in Table 2 of this DEMP. Wastes comprising solely or mainly dusts, powders or loose fibres are not accepted at the site. All heavy goods vehicles entering or exiting the site carrying waste or processed materials will be instructed to sheet or otherwise contain their loads (for example a fully enclosed container/wagon) to minimise the potential for the release of dust or particulate matter. If vehicles enter the site with their load uncovered a 3-strike policy is employed. The first strike is a verbal warning; the second a written warning explaining that any further breach will result in a ban from entering the site and the third strike is a permanent ban.
- 2.4** Waste acceptance at the site is and will continue to be controlled by the waste acceptance and rejection procedures which are implemented at the site. Pre-acceptance checks of information provided by the producer or holder of the waste shall be undertaken by the technically competent manager (TCM) or a suitably trained person instructed or managed by the TCM. The pre-acceptance checks shall be used to identify waste that is suitable for acceptance at the facility. Waste acceptance checks shall be carried out for all waste loads delivered to the facility to confirm that the load is consistent with the pre-acceptance information. The acceptance checks undertaken by suitably trained site personnel shall include inspection of the Duty of Care documentation and a visual inspection of the load to confirm that the load is consistent with the Duty of Care documentation. In the event that unsuitable materials are delivered to the site, including wastes comprising solely or mainly dusts, powders or loose fibres, the load will be rejected and arrangements will be made to remove the load from the site. Measures will be taken, for example damping down of the material, to minimise the potential for release of particulate matter from the load whilst collection is awaited. Key staff hold a relevant qualification under the approved CIWM/WAMITAB competence scheme appropriate to the waste operations conducted at the site.
- 2.5** The site layout is shown on Figure DEMP 2. A schematic diagram identifying the key activities to be undertaken is presented below. The schematic diagram should be read in conjunction with the site layout plan shown on Figure DEMP 2.



Note - # QP Aggregate generated from inert & excavation waste



**2.6** As shown in the schematic diagram, waste imported to the site will be subjected to a series of treatment activities with associated storage, all of which are undertaken with dust suppression available, either built into the treatment plant or via suppression using fixed water sprays, a mobile a water bowser or manual spraying using hosepipes. In general, the activities with the potential to generate and/or release dust and particulate matter comprise the following:

- Vehicles entering, travelling within, and/or leaving the site with mud or debris on their wheels.
- The release of dust, particulate matter and debris from material loads as they are delivered to the site.
- The resuspension of dust and particulate matter on roads and site surfacing by vehicles.
- The release of particulate matter when material loads are deposited or set down at the site.
- The release of particulate matter when an excavator and/or loading shovel dig into the materials prior to feeding materials into the treatment plant at the site or blending IBAA.
- The release of particulate matter when material is loaded into the hopper for the crushing/screening plant at the site or the bays in which IBAA is blended.
- The release of particulate matter when material is transferred from the crusher (crushed waste) into the screening plant at the site.
- The release of particulate matter when crushing or screening wastes or blending IBAA.
- The release of particulate matter when moving product material at the site.
- The release of particular matter when material is loaded onto transport vehicles for removal from site.
- The release of particulate matter from stockpiled materials. Wind whipping of materials stockpiled at the site.

- Particulate emissions from the exhausts of vehicles and plant on site.
- 2.7** The management techniques employed at the site to control dust and particulate matter with reference to the specific items identified in the bulleted list above are discussed in Section 3 of this document having regard to the measures presented in the Environment Agency guidance which is summarised in Table DEMP 3. Where specific activities have the potential to generate or release particulate matter, the proposed control measures are described and are summarised in Table DEMP 4 - Source - Pathway - Receptor linkages.

### **Pathways**

- 2.8** Dust and particulate matter have the potential to be dispersed from the source to potential receptors by the wind. A wind rose for Luton region is presented at Appendix DEMP A. For completeness the wind rose is reproduced on Figures DEMP 1 and DEMP 2. Based on the wind rose the prevailing wind direction is from the southwest and therefore areas to the northeast of the site are generally down prevailing wind direction of the site.

### **Receptors**

- 2.9** The potential receptors in the vicinity of the site are shown on Figure DEMP 1. The receptor type, distance and direction of the receptors closest to the site are listed in Table DEMP 1.
- 2.10** According to the DEFRA UK Air Information Resource website<sup>4</sup> the site is not located in an Air Quality Management Area (AQMA) or within 2km of an AQMA declared for PM<sub>10</sub>.

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<sup>4</sup> <https://uk-air.defra.gov.uk/>

### 3. Dust and particulate management

3.1 Particulate matter at the site is controlled by a combination of measures relating to waste delivery and receipt at the site, site infrastructure and operational techniques employed at the site. The techniques selected for use at the site are based on well-established techniques to control the emissions of particulate matter which have been demonstrated to be effective at other GRS sites. Collectively the techniques amount to good housekeeping. Reference has been made where relevant to the Environment Agency Technical Guidance Document (Monitoring) M17<sup>5</sup> entitled 'Monitoring of particulate matter in ambient air around waste facilities' (M17) and appropriate measures for control of dust and mud presented in Environment Agency guidance "Control and monitor emissions for your environmental permit". A variety of techniques are used at the site based on site specific circumstances.

#### Responsibility for implementation of this plan

3.2 The Technically Competent Site Manager (TCM) shall be responsible for the management of particulate matter and site staff will be trained appropriately. The TCM will appoint a suitably trained deputy to oversee the management of particulate matter at the site during operational periods when the TCM is not present at the site. The TCM will provide the training for the deputy. The training will include refresher training where appropriate however during the course of routine operation of the site the experience of the site staff, including the deputy, will comprise on the job training which will complement the refresher training.

#### Operational controls

3.3 For all anticipated deliveries of waste to the site, transporters are instructed to cover the loads with a sheet or otherwise contain their loads during transport to the site to minimise the risk of particulate emissions. Incoming loads remain sheeted or contained until such time as they are inspected and/or discharged. Following completion of the visual waste acceptance checks, drivers delivering waste to the site are instructed to place waste in the appropriate area of the site.

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<sup>5</sup> <https://www.gov.uk/government/publications/m17-monitoring-of-particulate-matter-in-ambient-air-around-waste-facilities>  
Published 7 April 2014

- 3.4** Waste received at the site is subject to pre-acceptance checks and acceptance screening comprising, where appropriate, visual inspection to confirm that the load is consistent with the waste types permitted for acceptance at the site. In the event that unsuitable materials are delivered to the site, including wastes comprising solely or mainly dusts, powders or loose fibres, the load is rejected. Drop heights are minimised during the loading, unloading, processing and transferring of waste.
- 3.5** In order to minimise the deposition of mud that may subsequently dry and generate particulate matter if disturbed, such as when tracked over by vehicles, hand held high pressure wheel cleaning equipment will be available at the site for use as necessary before leaving the site. Vehicles will be instructed to use the wheel cleaning equipment if necessary prior to returning to the local road network. The wheel cleaning equipment is located near to the weighbridge and site offices and is maintained in full working order. The site access road is maintained and swept with a road sweeper and the areas of hardstanding at the site will be maintained in a condition consistent with minimising the generation of dust and particulate matter.
- 3.6** The movement of site traffic is restricted to defined traffic routes which are maintained. A vehicle speed limit of 9.5mph is imposed on the site and on the adjacent access route for safety reasons and to reduce the potential for significant particulate matter to be resuspended. Insofar as it is practicable all site vehicle exhausts are upward pointing to prevent the disturbance of particulate matter from the road and site surfaces. The crushing and screening equipment used at the site is maintained in accordance with the manufacturer's recommendations to optimise performance and minimise emissions. Dust suppression sprays are built into the crushing and screening plant. A no idling policy is implemented at the site for vehicles and plant.
- 3.7** During dry weather conditions fixed and/or mobile water sprays supplemented if necessary by mobile bowsers or manual spraying using hosepipes are used to spray water onto the site including traffic routes and the adjacent access route together with operational and stockpiles areas to minimise the potential for particulate matter to be generated and become airborne. The use of water sprays and if necessary mobile bowsers and manual spraying is a proven effective dust management technique at numerous other aggregate treatment facilities. Operations which may have the potential to generate particulate matter will cease if weather conditions and ground

conditions preclude effective dust control. This decision will be made at the discretion of the TCM and / or site manager based on the site conditions (dry, damp, wet) giving consideration to the weather conditions (windy, calm, etc) and the type, quantity and particle size of the waste on site. Additional dampening of waste materials and/or stockpiles will be employed during high winds particularly when the prevailing wind direction is towards potentially sensitive receptors in the vicinity of the site.

- 3.8** In the event that particulate matter control measures fail to the extent that effective dust management cannot be provided then waste related operations at the site are suspended until such time as the control measures can be reinstated.
- 3.9** All relevant site personnel including contractors are trained in working practices and mitigation measures to minimise the generation and release of particulate matter.
- 3.10** The management techniques employed at the site to control dust and particulate matter having regard to the measures presented in the Environment Agency guidance are summarised in Table DEMP 3. Where specific activities have the potential to generate or release particulate matter, the proposed control measures are described and are summarised in Table DEMP 4 - Source - Pathway - Receptor linkages.
- 3.11** Visual monitoring for emissions of particulate matter is undertaken by site personnel. Further details are provided in Section 4 of this document.

#### **Water availability/usage**

- 3.12** Mains water is used in the dust suppression equipment including the water sprays supplemented if necessary by mobile bowsers or manual spraying using hosepipes.
- 3.13** The information presented above demonstrates that the site has sufficient water supply to allow use of the dust suppression system whenever the site is operational and in a worst-case scenario. In the unlikely event that insufficient water supply is available to provide effective dust suppression, and dust suppression is required, waste handling activities will temporarily cease until such a time that an adequate water supply can be restored.

**Action plan**

- 3.14** Consistent with the current observations at the site, it is considered that operational controls which are implemented to minimise the release of particulate matter and the generation of dust at the site will provide effective control of dust emissions at the site.
- 3.15** A Particulate Matter Management and Monitoring Action Plan is presented in Section 6 of this document. The Particulate Matter Management and Monitoring Action Plan will be implemented in the event that:
- i. there is an unacceptable visual emission of particulate matter from the site,  
or
  - ii. a complaint is received.

#### 4. Particulate matter monitoring

4.1 In TGN M17 it is stated that despite the subjective nature of the visual assessment of dust emissions:

*'this simple, cheap and easy to implement assessment approach has the significant advantage of providing instantaneous information on problems (e.g. it may be possible to directly observe the source of the dust emission, such as a particular stockpile) allowing rapid actions to be taken to deal with the problem. Visual assessments therefore complement well other, more-quantitative dust monitoring that may take several weeks to produce results.'*

4.2 During all site operations continuous visual monitoring for emissions of particulate matter shall be undertaken by suitably trained site personnel. In addition to the continuous visual monitoring a specific routine monitoring schedule will be undertaken comprising visual monitoring at 4 specific on-site locations at least once per day while the site is active. The on-site monitoring locations are shown on Figure DEMP 3. The results of the on-site monitoring of visible dust will be recorded on the visual monitoring checklist presented at Appendix B of this DEMP.

4.3 Visual monitoring by suitably trained site personnel is the most effective method of detecting as quickly as possible emissions of particulate matter throughout the working day thereby facilitating promptly the assessment of such emissions allowing the selection and implementation as quickly as practicable of control measures as necessary. The effectiveness of the measures taken in controlling emissions are assessed during inspections undertaken at the site following implementation of the control measures. Any problem that is observed is reported to the site manager who is responsible for investigating the cause and implementing any necessary remedial action. The results of inspections and remedial measures taken are recorded in the site diary.

4.4 As part of the daily housekeeping practices, an initial and final site inspection is completed at the start and end of each working day to check that the site is in a condition that has a low potential to release dust including dust as a result of operations outside of normal operational hours. Publicly available weather forecasts are consulted by site staff to identify forecasts of extreme weather events or storms

which may have the potential to increase the risk of the release of particulate matter from the site outside operational hours and additional control measures such as dampening of site surfacing and stockpiles prior to the end of the working day is implemented as necessary. The findings of the visual assessments are recorded in the Site Inspection Checklist presented at Appendix C. Any problem that is observed is reported to the site manager who is responsible for investigating the cause and implementing any remedial action as necessary. Incidents and remedial measures taken are recorded in the site diary.

- 4.5** The site manager uses the Meteorological Office<sup>6</sup> weather forecast or other forecast to predict weather conditions such as prolonged dry spells which may give rise to particulate matter emissions and implements the appropriate precautionary and or management measures. Qualitative assessments of the on-site conditions are undertaken as necessary and measures are taken to control aerial emissions of particulate matter within the site boundary.
- 4.6** The records of the visual particulate matter monitoring are reviewed periodically to facilitate the review and assessment of operational activities as necessary. The review is carried out in conjunction with a review of meteorological data that are available and the site operations that took place during the monitoring period together with any complaints regarding particulate matter emissions that have been received.
- 4.7** In the event that based on the visual site observations there is an unacceptable particulate matter emission from the site the Particulate Matter Management and Monitoring Action Plan is implemented. The Particulate Matter Management and Monitoring Action Plan is presented in Section 6.

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<sup>6</sup> <https://www.metoffice.gov.uk/>



## 5. Engagement with the Community

5.1 GRS is conscious of the potential impact on the environment of its activities and strives to manage and minimise those impacts. GRS recognises the importance of community engagement and strives to build a positive working relationship with local residents and businesses across all of its sites. Contact details for the site are displayed on the signage at the site entrance.

### **Reporting of complaints and management responsibilities**

5.2 Any complaints about the site operations and/or their impact on the environment made by third parties (including any complaints identified by the Environment Agency, Health and Safety Executive or Local Authority) should be brought to the attention of the TCM in the first instance who will identify and implement the measures needed to resolve the matter as set out in Section 6 of this DEMP. They shall then make a note of the complaint and the actions taken to resolve it. A register of complaints will be maintained onsite in the site diary. Complaints will be escalated to senior management at the discretion of the TCM, based on the number and nature of the complaints. Should complaints be escalated the details will be recorded in the site diary.

5.3 The particulate matter management and monitoring action plan which is implemented in the event that a complaint is received is presented in Section 6 of this DEMP.

## 6. Particulate matter and dust management and monitoring action plan

### Context

6.1 The overriding management principle of the site with respect to dust control is to operate the site in a manner which prevents or minimises the release of dust as set out in the DEMP. If it is considered that the waste stored on the site, the waste being loaded or unloaded at the site or the site surfacing itself is in a condition that has the potential to release a significant quantity of dust such that there is a potential for off site dust emissions, additional dust suppression measures will be employed in a manner proportionate to the risk. These actions will be undertaken as part of the routine operation of the site. The action plan in this section of the report sets out the additional actions that will be taken in the event that conditions are identified whereby the routine measures need to be supplemented or improved.

### Introduction

6.2 The action plan will be implemented in the event that:-

- i) there is an unacceptable visual emission of dust from the site, or
- ii) a complaint is received.

An unacceptable visual emission of dust from the site comprises a visual observation of dust or particulate matter crossing the site boundary from GRS's operations. The initial visual observation will be made by the site operative who has identified the emission and will be verified by the TCM. At the first instance of an unacceptable emission of dust or particulate matter from the site, verified by the TCM, the site should cease dust generating activities immediately and the action plan provided below will be implemented. If after following the action plan unacceptable emissions continue the site will cease operating until site these emissions can be brought under control.

6.3 The timescale for implementation of the action plan will vary depending on the circumstances under which it is implemented. If an unacceptable visual emission is observed by site operative there will be no delay in implementing the action plan, whereas a complaint may be received by the operator a number of hours or even days after the activity that may have contributed to the complaint has ceased. In the

latter case investigation of the complaint will be based on a review of the data and observations recorded at the site corresponding to the time at which the complainant observed the event.

### Action plan

- 6.4** In the event that an unacceptable visual emission of particulate matter from the site is observed by site personnel the event will be investigated immediately by the TCM to determine the source as follows:

If it is established that the emissions are attributable to activities being undertaken at the GRS site action will be taken to control the emissions including where relevant:

- If emissions are attributable to stockpiled material, the employment of further dust suppression immediately by either repositioning a water spray or if necessary, using a water bowser or manual spraying using a hosepipe to dampen the stockpiles. Dust suppression will provide full coverage of the stockpiles.
- If emissions are attributable to unloading or loading of waste mobile the application of additional dust suppression to control the particulate matter emission from the activity being undertaken. The temporary cessation of unloading and loading of waste until the dust suppression is sufficient to ensure that particulate matter emissions are effectively controlled and emissions do not cross the site boundary. Dust suppression will provide full coverage of loading and unloading areas on site.
- If the emissions are attributable to crushing, screening or blending operations, the employment of additional suppression immediately such as by repositioning a water spray or if necessary, using a water bowser or manual spraying using a hosepipe to dampen the operational area. Temporary cessation of the processing operations until the dust suppression is sufficient to ensure that particulate matter emissions are effectively controlled and emissions do not cross the site boundary. Dust suppression will provide full coverage of processing areas on site.
- Organisation of additional mechanical or manual sweeping or cleaning of the site surfaces to ensure surface debris does not give rise to unacceptable emissions of dust or particulate matter.

- Carrying out checks to confirm that vehicles are adequately covering loads and obeying the site speed limits.
- Identifying whether there are any other activities being undertaken at locations other than the GRS site including the locations with the potential to release particulate matter identified in Table DEMP 1 and estimating the extent to which other activities may contribute to the visual emissions observed on the site including circumstances where windblown dust may be transported across and/or over the site from the external sources.
- In the unlikely event that the routine control measures employed at the site are not sufficient to control particulate matter emissions then consideration will be given to further measures to minimise and control emissions such as relocation of storage areas, temporary reduction in stockpile heights, installation of additional storage bays, implementation of additional dust suppression, procurement of additional dust suppression equipment or incorporation of a chemical suppressant into the water sprays employed at the site.

**6.5** In the event of a complaint associated with particulate matter emitted from the site an investigation will be undertaken immediately to determine the source as follows:

- Identify from the site diary what activities were being undertaken at the time at which the complaint event occurred and in which location at the site and review the waste types that were accepted and handled at the site on that day.
- Identify from meteorological data available whether the emissions are potentially a result of the operations at the site.
- Identify from the site diary whether there were any unusual regional weather events occurring during the day on which the complaint was made such as Saharan dust storms.
- Giving consideration to the wind direction on the day of the complaint, identify from the site diary whether there were any other activities being undertaken at locations other than the GRS site for example the neighbouring sites with the potential to release particulate matter identified in Table DEMP 1.

- If it is established that the emissions were attributable to activities being undertaken at the site, review the relevant operational procedures and implement improvements and provide additional training to site personnel and third party contractors to improve the controls and minimise future emissions. Consideration will be given to further measures to minimise and control emissions such as relocation of storage areas, temporary reduction in stockpile heights, installation of additional storage bays, implementation of additional dust suppression, procurement of additional dust suppression equipment or incorporation of a chemical suppressant into the water sprays employed at the site.

**6.6** Appropriate action will be taken which will include the cessation of the activity is necessary. In the case of a complaint, the action taken will be communicated to the complainant and the Environment Agency. Feedback will be provided to the complainant in the form of a letter/email within 28 working days of acknowledging receipt of the complaint. As necessary the relevant operational procedures will be reviewed and improvements implemented.

**TABLES**

Table DEMP 1

Summary of the receptors in the vicinity of the site (including other sources of dust emissions)

Ref	Name or description	Type of receptor	Approximate distance from site (m)	Direction from site
1	Buckhurst Plant Hire	Industrial	<250	ENE
2	DS Smith Packaging	Industrial	<250	E
3	Travis Perkins	Industrial	<250	E
4	EFCO UK Ltd	Industrial	<250	ENE
5	Tarmac	Industrial	<250	E
6	Wellingborough Plastics	Industrial	<250	ESE
7	John Redden Ltd	Industrial	>250 / <500	ESE
8	Wellingborough Motor Centre	Industrial	>250 / <500	E
9	W.J Redden & Sons Ltd	Industrial	>250 / <500	E
10	Transglobal Freight Management Ltd	Industrial	>250 / <500	ENE
11	Premier Group	Industrial	>250 / <500	ENE
12	Bushboard Ltd	Industrial	>250 / <500	SW
13	BAM Site Solutions	Industrial	<250	SW
14	David Watson Transport Ltd	Industrial	>250 / <500	S
15	Grabhire4U	Industrial	>250 / <500	WSW
16	DCV Engineering Ltd	Industrial	>250 / <500	WSW
17	Think 3 E Consortium	Industrial	<250	W
18	Travis Perkins	Industrial	>250 / <500	WNW
19	Astraseal	Industrial	>250 / <500	W
20	Linde Material Handling (UK) Ltd	Industrial	>250 / <500	W
21	Units 1 – 13 Bevan Close	Industrial	<250	W
22	Rank Hovis PLC, Finedon Mill	Industrial	>250 / <500	W
23	Copper Elf / Finedon Hill Forge	Industrial	>500	ENE
24	VEKA Recycling   uPVC Recycling Wellingborough	Industrial	>250 / <500	NW
25	Cawleys Hazardous Services	Industrial	>250 / <500	NW
26	Gallay Ltd	Industrial	>500	WNW
27	Metal Craft Industries UK Ltd	Industrial	>500	WNW
28	Glazerite UK Group Limited	Industrial	>250 / <500	WSW
29	Man Truck & Bus	Industrial	<250	S
30	Hanson Ready-mixed Concrete	Industrial	>500	W
31	Hampton Steel Ltd	Industrial	>500	NW
32	Virani Food Products Ltd	Industrial	>500	W
33	Intercounty Truck & Van Ltd - Wellingborough	Industrial	>500	WNW
34	Wellingborough Household Recycling Centre	Industrial	>500	NW
35	Alti's Catering Ltd	Industrial	>250 / <500	WNW
36	Midland Business Units	Commercial/Industrial	>500	S
37	APS Landscapes	Commercial	>500	ENE
38	FedEx Station Wellingborough	Commercial	<250	S
39	Jewson Wellingborough	Commercial	<250	S
40	Howdens - Wellingborough	Commercial	<250	SE
41	The Garage Door Centre Ltd	Commercial	<250	SE

Ref	Name or description	Type of receptor	Approximate distance from site (m)	Direction from site
42	Wellingborough Domestic Dwellings	Domestic Dwellings	>250 / <1000	W, SW, S
43	The Hollies	Domestic Dwelling	>500	ENE
44	Finedonhill Farm	Farm	>500	E
45	Ladywell Allotments	Recreational	>250 / <500	SW
46	Central Park	Recreational	>500	SSE
47	Compass Church	Religious	<250	SE
48	Weatherbys Bank Limited (HQ)	Commercial	>500	NW
49	Neilsons Sidings	Transport	<250	NW
50	A510	Transport	<250	E, SE, S, SW
51	River Ise	Waterbody	<250	N, NE, E, SE

Note: The shaded boxes comprise activities such as roads and commercial operations in the vicinity of the site which have the potential to contribute particulate matter emissions to local air quality. Receptors within 1km of the site are displayed in Table 1 above. The receptors are measured from their closest point to the site and their locations are shown on Figure DEMP 1.



Table DEMP 2

## Waste types authorised to be accepted at the site

EWC Code	Description
17 01 01	Concrete
17 01 02	Bricks
17 01 03	Tiles and ceramics
17 01 07	Mixtures of concrete, bricks, tiles and ceramics
17 02 02	Glass
17 03 02	Bituminous mixtures
17 05 04	Soil and stones (C&D waste)
17 05 08	Track ballast
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11 (processed incinerator bottom ash aggregate (IBAA) which complies with BS 13242 only)
20 02 02	Soil and stones (garden and park wastes)

Table DEMP 3

**Measures that will be used on site to control emissions of particulate matter**

This table considers in turn each of the measures considered in Table 3.2 of Environment Agency internal guidance template entitled “Dust and emission management plan” (Version 10 dated October 2018). Text from the EA guidance document is shown in red.

Abatement Measure	Description / Effect	Overall consideration and implementation
<b>Preventative Measures</b>		
Enclosure within a building	Creating a solid barrier between the source of dust and particulates and receptors is likely to be the most effective method of control, provided that the building entrances and exits are well managed.	Taking into consideration the current and proposed waste types accepted at the site it is considered unnecessary to carry out operations inside a building.
Negative pressure extraction	Within enclosed buildings, controlled extraction can be undertaken to ensure a constant negative pressure relative to the outside air. This system should prevent the emission of particulates from any openings in the building. Extracted air should be treated through a suitable filtration system prior to discharge to atmosphere. This method is more frequently applied for odour control.	As this technique is relevant only to operations undertaken within a building it is not relevant to the operations at the site.
Dust Extraction Systems	A large variety of abatement technologies exist for the removal of dust and particulates from a flowing gas and have typically been applied to combustion plants and other sites where controlled emissions of	As this technique is relevant only to operations undertaken within a building it is not relevant to the operations at the site.

Abatement Measure	Description / Effect	Overall consideration and implementation
	<p>particulates occur. These include Electrostatic Precipitators (ESPs), wet scrubbers, baghouses (bag filters), viscous media (e.g. oil) filters and gravitational settling. Although not all of these may be appropriate for dust and particulate suppression at waste management sites, and they cannot be applied to controlling external fugitive emissions, they may be effective when coupled with local exhaust extraction, ventilation or negative pressure extraction systems from enclosed buildings to remove dust and particulates from the airstream.</p>	
<p>Site / process layout in relation to receptors</p>	<p>Locating particulate emitting activities at a greater distance and downwind from receptors may reduce receptor exposure, provided that emissions from the source are not dispersed over significant distances.</p>	<p>No changes are proposed to the site boundary as part of the application to vary the permit and the operations the subject of the application to vary the permit do not present a significant additional risk in respect of dust and particulate matter compared with the operations which already are the subject of the permit. By the grant of the permit in 2012, the inert and excavation waste transfer and treatment operations the subject of the permit have been accepted at this location in respect of proximity to receptors and no restrictions in respect of site/process layout were considered necessary. The IBAA blending operations will be carried out on newly formed areas of impermeable surfacing in the north of the site with each area being surrounded on three sides by concrete block walls up to 4m high. The concrete walls will act to minimise dust and particulate matter from the IBAA blending operations.</p>
<p>Site speed limit, 'no idling' policy</p>	<p>Reducing vehicle movements and idling should reduce emissions from vehicles. Procurement policy to only</p>	<p>A 9.5mph speed limit is imposed at the site. Insofar as it is practicable all site vehicle exhausts will be upward pointing to prevent the disturbance of particulate matter from the road surfaces. A no idling policy is implemented at the site.</p>

Abatement Measure	Description / Effect	Overall consideration and implementation
and minimisation of vehicle movements on site	purchase clean burn road vehicles and non-road going mobile machinery. Enforcement of a speed limit may reduce re-suspension of particulates by vehicle wheels.	
Minimising drop heights for waste. Use of enclosed chutes for waste drops/end of conveyor transfers and covered skips / storage vessels.	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Enclosing processes will further reduce dispersion.	Drop heights when loading, unloading and transferring materials will be minimised and limited to a maximum of 1 metre across the entire site at all times. Site operational staff will be made aware of this requirement and training will be provided on best practice for handling materials to minimise drop heights. Water sprays and if necessary bowsers and manual spraying with hosepipes will be employed to provide dust suppression to minimise the release of particulate matter from the unloading, storage, treatment and loading of waste at the site. Waste will be at its highest point when being fed into the crushers and moving through the screener. Crushing and the screening plant have in built dust suppression technology.
Good house-keeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure site is regularly checked and issues remedied to prevent and remove dust and particulate build up.	Good housekeeping is mandatory at the site and the TCM will continuously encourage training of staff. The site surface will be assessed daily to ensure there isn't an unacceptable build up of debris on site that is likely to give rise to an unacceptable emission of dust or particulate matter. Vehicles will have their wheels cleaned as necessary prior to leaving the site using the hand held wheel cleaning facilities.
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	All heavy goods vehicles entering or exiting the site carrying waste or processed materials will be instructed to sheet or otherwise contain their loads (for example a fully enclosed container/wagon) to minimise the potential for the release of dust or particulate matter. If vehicles enter the site with their load uncovered a 3-strike policy is employed. The first strike is a verbal warning; the second a written warning explaining any further breach will result in a ban from entering the site and the third strike is a permanent ban.

Abatement Measure	Description / Effect	Overall consideration and implementation
Hosing of vehicles on exit	May remove some dirt, dust and particulates from the lower parts of vehicles although likely to be less effective than a more powerful wheel wash.	In order to minimise the deposition of mud that may subsequently dry and generate particulate matter if disturbed, such as when tracked over by vehicles, hand held high pressure wheel cleaning equipment will be available at the site for use as necessary before leaving the site. Vehicles will be instructed to use the wheel cleaning equipment if necessary prior to returning to the local road network. The wheel cleaning equipment is maintained in full working order.
Ceasing operation during high winds and/or prevailing wind direction	Mobilisation of dust and particulates is likely to be greater during periods of strong winds and hence ceasing operation at these times may reduce peak pollution events.	GRS will cease waste handling operations if weather conditions and ground conditions preclude effective dust control. This decision will be made at the discretion of the TCM based on the site conditions (dry, damp, wet) giving consideration to the weather conditions (windy, calm, etc) and the type, quantity and particle size of the waste on site.
Installed wheel wash	Provides a high pressure wash of vehicle wheels and lower parts (including under body) using a series of jet sprays. More effective if vehicles drive through the wheel wash slowly in order that there is sufficient time for dirt to be removed.	In order to minimise the deposition of mud that may subsequently dry and generate particulate matter if disturbed, such as when tracked over by vehicles, hand held high pressure wheel cleaning equipment will be available at the site for use as necessary before leaving the site. Vehicles will be instructed to use the wheel cleaning equipment if necessary prior to returning to the local road network. The wheel cleaning equipment is maintained in full working order.
Easy to clean concrete impermeable surfaces	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the site and on site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and site activities.	By the grant of the permit in 2012, the inert and excavation waste transfer and treatment operations the subject of the permit have been accepted at this location with a hardstanding surfacing. The IBAA blending operations will be carried out on newly formed areas of impermeable surfacing in the north of the site.

Abatement Measure	Description / Effect	Overall consideration and implementation
Minimisation of waste storage heights and volumes on site	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	The principle of the operation of the site is to minimise the timescale during which waste is stored at the site, hence the quantity of waste stored, by maintaining a regular schedule of HGV deliveries from the site.
Reduction in operations (waste throughput, vehicle size, operational hours)	Reducing the amount of activity on site, including no tipping, shredding, chipping or screening of high risk loads during windy weather as well as associated traffic movements should result in reduced emissions and re-suspension of dust and particulates from a site.	GRS will cease waste handling operations if weather conditions and ground conditions preclude effective dust control. This decision will be made at the discretion of the TCM based on the site conditions (dry, damp, wet) giving consideration to the weather conditions (windy, calm, etc) and the type, quantity and particle size of the waste on site.
Remedial Measures		
Netting / micro netting around equipment	Erecting netting around equipment that could give rise to large amounts of dust and particulates may be effective within the site boundary and prevent their dispersion off-site / their re-suspension within the site.	No changes are proposed to the site boundary as part of the application to vary the permit and the operations the subject of the application to vary the permit do not present a significant additional risk in respect of dust and particulate matter compared with the operations which already are the subject of the permit. By the grant of the permit in 2012, the inert and excavation waste transfer and treatment operations the subject of the permit have been accepted at this location in respect of proximity to receptors and no controls comprising netting were considered necessary. The IBAA blending operations will be carried out on newly formed areas of impermeable surfacing in the north of the site with each area being surrounded on three sides by concrete block walls up to 4m high. The concrete walls will act to minimise dust and particulate matter from the IBAA blending operations.

Abatement Measure	Description / Effect	Overall consideration and implementation
On-site sweeping	<p>Sweeping could be effective in managing larger debris, dust and particulates but may also cause the mobilisation of smaller particles.</p> <p>Road sweeping vehicles damp down dust and particulates whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.</p> <p>This may generate dust and particulate movement that may become a Health and Safety issue if the filters and spray bars on the sweepers are not maintained.</p>	<p>The site access road is maintained and swept with a road sweeper and the areas of hardstanding at the site will be maintained in a condition consistent with minimising the generation of dust and particulate matter.</p>
Site perimeter netting / micro netting	<p>Erecting netting around the site perimeter may capture released debris and dust and particulates prior to it being dispersed off-site.</p>	<p>No changes are proposed to the site boundary as part of the application to vary the permit and the operations the subject of the application to vary the permit do not present a significant additional risk in respect of dust and particulate matter compared with the operations which already are the subject of the permit. By the grant of the permit in 2012, the inert and excavation waste transfer and treatment operations the subject of the permit have been accepted at this location in respect of proximity to receptors and no controls comprising netting were considered necessary. The IBAA blending operations will be carried out on newly formed areas of impermeable surfacing in the north of the site with each area being surrounded on three sides by concrete block walls up to 4m high. The concrete walls will act to minimise dust and particulate matter from the IBAA blending operations.</p>
Water suppression with hoses & water jets	<p>Damping down of site areas using hoses can reduce dust and particulate re-suspension and may assist in the</p>	<p>As explained in Section 3 of this DEMP fixed and mobile water suppression will be used at the site.</p>

Abatement Measure	Description / Effect	Overall consideration and implementation
	cleaning of the site if combined with sweeping.	
Water suppression with mist sprays	Installation of mist sprays around sites, at building entrances/exits and within buildings at point source emissions like conveyors, trommels etc. It can also assist in the damping down of dust and particulates, therefore, reducing emissions from site.	There are no waste storage buildings at the site. It is unnecessary to install any mist suppression in addition to the water suppression described above.
Water suppression with bowser	Using bowzers is a quick method of damping down large areas of the site with large water jets. This method could also be used on easy-to-clean, impermeable concrete surfaces.	Dust suppression will be provided at the site by water suppression which will be employed to minimise the release of dust from site surfaces, stockpiled materials and operational areas.
Dust and particulate monitor with trigger alarm	Installation of a dust and particulate monitor with specified alarm trigger level can alert site staff when short-term particulate concentrations are elevated in order that site practices can be reviewed or application of mitigation measures increased.	<p>By the grant of the permit in 2012, the inert and excavation waste transfer and treatment operations the subject of the permit have been accepted at this location in respect of proximity to receptors and no controls comprising dust and particulate monitoring with specified alarm trigger level were considered necessary. The operations the subject of the application to vary the permit do not present a significant additional risk in respect of dust and particulate matter compared with the operations which already are the subject of the permit.</p> <p>Visual dust monitoring will be carried out at the site. Visual dust monitoring, which is to be undertaken by suitably trained staff, is an effective method of rapidly detecting emissions and facilitates the selection rapidly of an appropriate method of particulate matter control based on observations at the time of the emission.</p>
Shaker grids	Similar to cattle grids, these are installed at a site entrance and exit. The movement of vehicles over the	As the entire site will comprise a well maintained hardstanding surface with areas of impermeable pavement where the IBAA blending operations will be carried out and as



Abatement Measure	Description / Effect	Overall consideration and implementation
	grids shakes dust and particulates from the wheels, thus removing them before vehicles enter the site.	hand held high pressure wheel cleaning equipment will be available at the site for use as necessary a shaker grid is unnecessary.
Water Cannons	Water cannons provide a means for delivery of powerful water streams from a water truck. With variable nozzles, the spray pattern can be controlled and varied between jet and fog. Typical water flows are up to 5000 litres per minute. Water cannons are most often used for fire protection, mining operations, heavy machinery wash down, cleaning and dust and particulate abatement.	Dust suppression will be provided at the site by water suppression equipment. As it is considered that the dust suppression system employed at the site will provide sufficient suppression capacity it is considered unnecessary to install water cannons at the site.
Screening of buildings / reducing large apertures using plastic strips	Installing plastic strips to cover entrances/exits to buildings may reduce emissions of dust and particulates dispersing through doorways.	As this technique is relevant only to operations undertaken within a building it is not relevant to the operations undertaken at the site.
Application of CMA / chemical suppressant	Diluted Calcium Magnesium Acetate (CMA) or other chemical based dust suppressant is regularly applied by spraying using a back-pack applicator for small areas or by road sweeper to cover larger areas. CMA acts as a suppressant with the aim of reducing	Dust suppression will be provided at the site by water suppression equipment. As it is considered that the dust suppression system employed at the site will provide sufficient suppression capacity it is considered unnecessary to use CMA/chemical suppressants at the site.

Abatement Measure	Description / Effect	Overall consideration and implementation
	dust and particulate re-suspension and hence ambient concentrations.	
Heavy Water	Heavy water is used to improve the compaction and stability and reduce dust and particulates on unsealed roads or areas of land. Ideally it is blended into the road construction material as the road is constructed, but where this is not possible it can be sprayed onto the top of the road. Heavy water combines fast acting wetting agents with polymer binders, to allow penetration deep into the material and to 'agglomerate' the dust and particles together.	Dust suppression will be provided at the site by water suppression equipment. As it is considered that the dust suppression system employed at the site will provide sufficient suppression capacity it is considered unnecessary to use heavy water at the site.
Foam Suppression	The aggregate and mining industries frequently use foam suppression for the control of dust and particulate emissions, mixing the foam with broken material to increase efficiency. Foaming agents can be added to increase the efficiency of dust and particulate reduction. Foam suppression has seen increased attention in recent years and has previously been applied to waste transfer facilities where crushing of waste occurs.	Dust suppression will be provided at the site by water suppression equipment. As it is considered that the dust suppression system employed at the site will provide sufficient suppression capacity it is considered unnecessary to use foam suppression at the site.

Table DEMP 4

## Source - pathway - receptor linkages

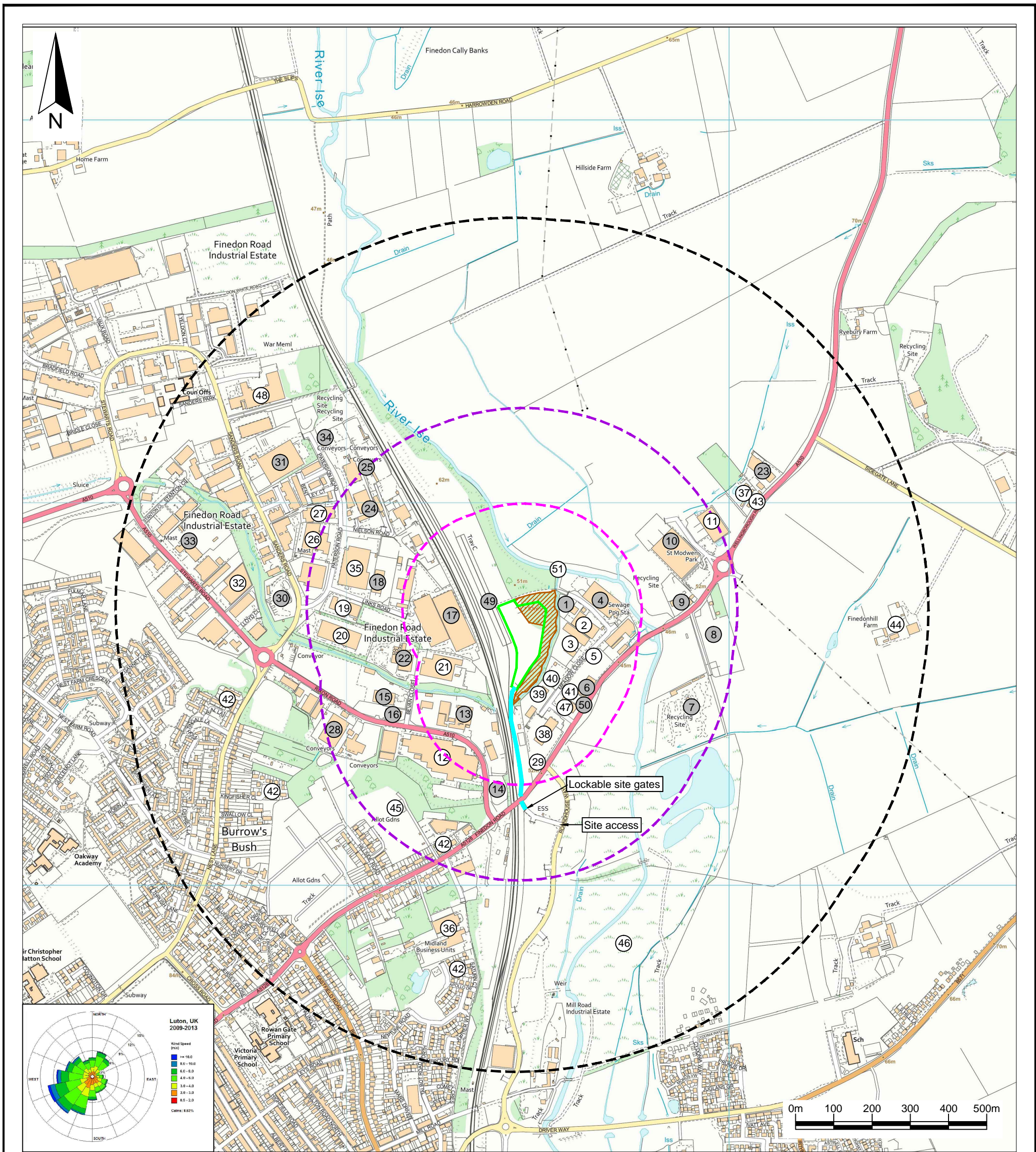
For each of the sources and pathways included in the table the receptor is considered to be the receptors identified in Table DEMP 1, particularly those located down prevailing wind of the site. The sources in the table comprise those identified in Section 2 of the DEMP. Further details of the techniques employed are presented in Section 3 of the DEMP and in Table DEMP 3.

Source	Pathway	Techniques employed to minimise the emissions of dust
Vehicles entering and/or leaving the site with mud on their wheels	Tracking out of the site of particulate matter and mud on vehicle wheels which may drop off and deposit on the public highway which may subsequently dry and generate particulate matter if disturbed such as when tracked over by vehicles.	In order to minimise the deposition of mud that may subsequently dry and generate particulate matter if disturbed, such as when tracked over by vehicles, hand held high pressure wheel cleaning equipment will be available at the site for use as necessary before leaving the site. Vehicles will be instructed to use the wheel cleaning equipment if necessary prior to returning to the local road network. The wheel cleaning equipment is maintained in full working order.  The site access road is maintained and swept with a road sweeper and the areas of hardstanding at the site will be maintained in a condition consistent with minimising the generation of dust and particulate matter.
The resuspension of particulate matter on roads and site surfacing by vehicles	Atmospheric dispersion	The site access road is maintained and swept with a road sweeper and the areas of hardstanding at the site will be maintained in a condition consistent with minimising the generation of dust and particulate matter. Dust suppression sprays together if necessary with bowsers and manual spraying with hosepipes will be used to dampen down as necessary the site surface to reduce the potential for particulate matter to be resuspended by vehicles travelling round the site.
The release of particulate matter and debris from waste loads as they are delivered to the site	Falling off delivery or collection vehicles.	All vehicles using the site will be instructed to sheet or otherwise contain their loads prior to arrival at the site to minimise the risk of particulate emissions. Loads will be sheeted or contained until such

Source	Pathway	Techniques employed to minimise the emissions of dust
		time as they are inspected and/or deposited. Outgoing loads will be sheeted.
The release of particulate matter when waste loads are deposited or set down in stockpiles on the site.	Atmospheric dispersion	Drop heights are kept to a minimum and loads that arrive sheeted are kept sheeted immediately prior tipping to minimise the potential for release of dust. Dust suppression is provided at the site by fixed and mobile water sprays which are employed to minimise the release of dust from stockpiled waste at the site.
The release of particulate matter when treating waste through crushing and screening.	Atmospheric dispersion	Crushing and screening is carried out on a campaign basis (i.e., not on a routine daily basis) and taking into consideration the prevailing weather conditions in order to reduce the risk of generating and releasing particulate matter. Crushing and screening will be avoided during weather conditions that preclude effective particulate matter management. Drop heights will be minimised during the unloading of waste into the crusher/screener. The crushing and screening plant is equipped with enclosed conveyors and built in dust suppression spray bars to minimise the release of particulate matter during the treatment of waste at the site. Fixed and mobile water suppression is employed to provide additional dust suppression.
The release of particulate matter when blending IBAA.	Atmospheric dispersion	The blending process will be undertaken with dust suppression available and taking into consideration the prevailing weather conditions. The IBAA blending operations will be carried out on newly formed areas of impermeable surfacing in the north of the site with each area being surrounded on three sides by concrete block walls up to 4m high. The concrete walls will act to minimise dust and particulate matter from the IBAA blending operations. The dust suppression is provided by water suppression which is employed to minimise the release of dust during blending. Drop heights will be minimised during the material handling operations.
The release of particulate matter from stockpiled materials. Wind scouring / wind whipping of material stockpiles.	Atmospheric dispersion	Stockpiles have the potential to dry out and release particulate matter by wind scouring. Waste stockpiles will be dampened using the water suppression. The IBAA blending operations will be carried out on

Source	Pathway	Techniques employed to minimise the emissions of dust
		newly formed areas of impermeable surfacing in the north of the site with each area being surrounded on three sides by concrete block walls up to 4m high. The concrete walls will act to minimise dust and particulate matter from the IBAA blending operations.
Particulate emissions from the exhaust of vehicles and plant on site.	Atmospheric dispersion	Vehicles and plant on site will be maintained to optimise performance and minimise vehicle emissions. A no idling policy will be implemented at the site for vehicles and plant.

**FIGURES**



**Key / Notes**

- Approximate boundary of Environmental permit number EPR/LB3733AF
- 250m distance from the site
- 500m distance from the site
- 1000m distance from the site
- Protected Habitat Deciduous Woodland
- 17 Potential receptor of dust generally within a 1km radius of the site
- Site access road

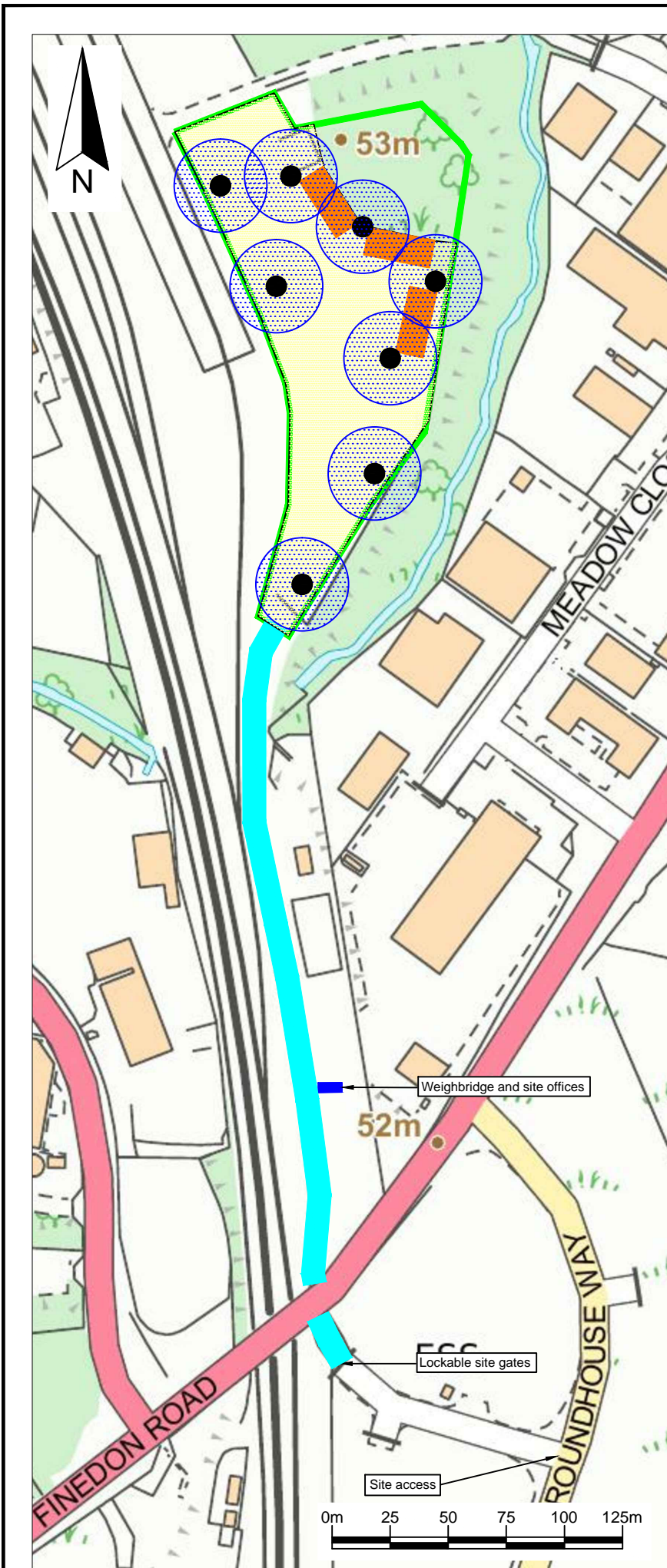
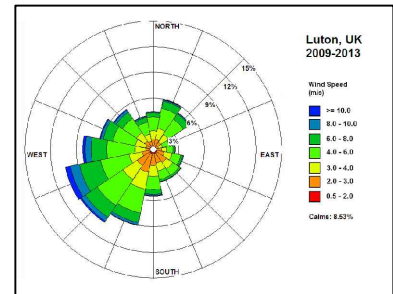
**Notes:**  
 A full list of the receptors identified on the drawing is presented in Table 1 of the DEMP. The numbers shaded in grey on the drawing comprise activities such as roads and commercial operations in the vicinity of the site which have the potential to contribute particulate matter emissions to local air quality.

The locations of the Nature and Heritage Conservation Sites were provided by the Environment Agency in the Screening Report dated July 2023.

Rev	Final	KR	JAD	GT	21/09/23				
	Status	Drn	App	Chk	Date				
Site WELLINGBOROUGH RAILHEAD									
Client GRS (Roadstone) Limited									
Title Site plan showing the receptors relevant to the DEMP									
Figure DEMP 1					Scale 1:10,000@A3				
Drawing Ref GRS/WE/07-23/23814									

## Key / Notes

-  Approximate boundary of Environmental permit number EPR/LB3733AF
-  Hardstanding area in which inert and excavation waste transfer and treatment operations may be carried out
-  Storage area for imported and blended IBAA
-  Weighbridge and site offices
-  Location of a sprinkler dust suppression point
-  Approximate coverage of dust suppression
-  Site access road



Rev	Final	KR	JAD	GT	21/09/23
	Status	Drn	App	Chk	Date

Site: WELLINGBOROUGH RAILHEAD

Client: GRS (Roadstone) Limited

Title: Site layout

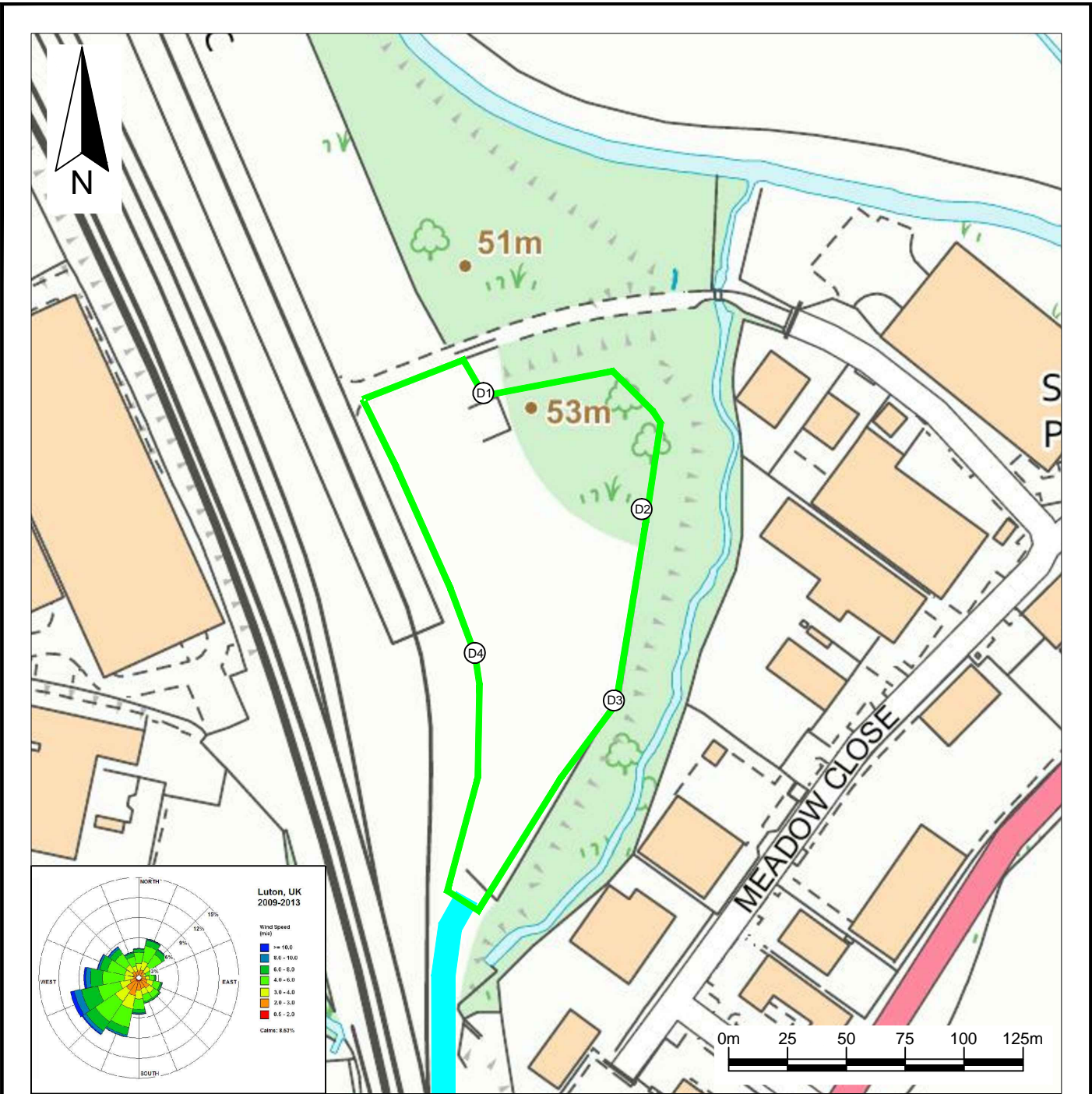
Figure DEMP 2      Scale: 1:2,500@A4

Drawing Ref: GRS/WE/07-23/23815




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**MJCA** Baddesley Colliery Offices,  
Main Road, Baxterley, Atherstone,  
Warwickshire, CV9 2LE.  
Telephone : 01827 717891  
Technical advisers on environmental issues Fax : 01827 718507





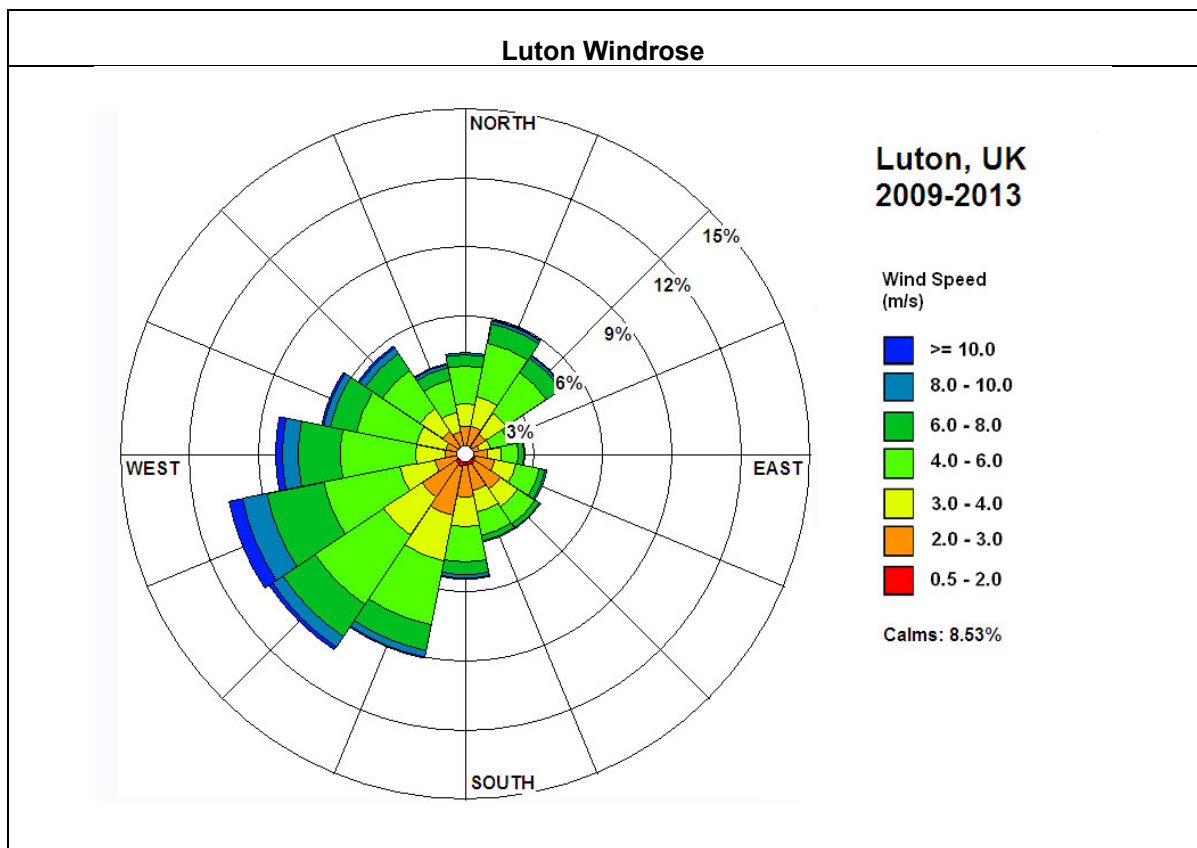
### Key / Notes

-  Approximate boundary of Environmental permit number EPR/LB3733AF
-  Visual dust monitoring point
-  Site access road

	Final	KR	JAD	GT	21/09/23
Rev	Status	Drn	App	Chk	Date
Site WELLINGBOROUGH RAILHEAD					
Client GRS (Roadstone) Limited					
Title Locations for the monitoring of visible dust					
Figure DEMP 3				Scale 1:2,500@A4	
Drawing Ref GRS/WE/07-23/23816					
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**APPENDICES**

**APPENDIX A**  
**WIND ROSE FOR LUTON 2009 – 2013**



**APPENDIX B**  
**VISUAL MONITORING CHECKLIST**

# Dust Monitoring Form

Week commencing: .....

Day	Name of assessor	Time	Location	Wind direction	Visual observations / Comments	Action taken
Monday			D1			
			D2			
			D3			
			D4			
Tuesday			D1			
			D2			
			D3			
			D4			
Wednesday			D1			
			D2			
			D3			
			D4			
Thursday			D1			
			D2			
			D3			
			D4			
Friday			D1			
			D2			
			D3			
			D4			
<b>Additional comments</b>						

Signed off by  
 Management: .....

This form should be read and used in conjunction with Figure DEMP 3 which shows the visual monitoring locations D1, D2, D3 and D4

*Use as many of these forms as necessary*

**APPENDIX C**  
**SITE INSPECTION CHECK SHEET**

## Site Inspection Check Sheet

**Week Commencing:** \_\_\_\_\_

<b>Daily Check</b>	Mon	Tue	Wed	Thu	Fri	Sat	Sun
TCM signed in?							
Waste/materials stored in correct area?							
Outputs – stored in separate marked areas							
Condition of yard – surface integrity, spillages, debris							
Water storage tank – visual check of integrity							
Dust – visual assessment							
Dust – bowser operational							
Noise – assess operations							
Wheel cleaning equipment - functional							
Mud on road – site entrance checked							
Odour – check for complaints, assess odour							
Litter – check complaints, litter around site							
Security – boundary condition							
Condition of road/site surfaces – cleanliness, surface condition							
<input checked="" type="checkbox"/> if OK or nothing to report							
<input checked="" type="checkbox"/> if not – see facility diary for details							
<b>Weekly Inspections</b>	<b>Comments</b>						
Permit & EMS – available & up to date							
Duty of Care documents – checks current & recorded?							
Mobile & static plant maintenance – checks completed							
Accommodation/welfare facilities – toilets, mess							
<b>Monthly Inspections</b>	<b>Comments</b>						
Warning/information signs – suitability, condition							
Site ID board – condition, still current							
Fire extinguishers / safety equipment							
First Aid boxes – contents & position							
Plant maintenance schedules							

<b>Issue no:</b>	1	<b>Date:</b>	August 2023	
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## Site Inspection Check Sheet

Comments:

Checks carried out by:      Print Name \_\_\_\_\_ Signed \_\_\_\_\_ Date \_\_\_\_\_

Reviewed by  
Manager/Director:      Print Name \_\_\_\_\_ Signed \_\_\_\_\_ Date \_\_\_\_\_

<b>Issue no:</b>	1	<b>Date:</b>	August 2023		
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