

See a Difference.

Project No: 313306

Dust Management Plan

Prepared for:

2ZLF Ltd

West Meadows Industrial Estate

Derby

DE21 6HA

Contents Amendment Record

This report has been issued and amended as follows:

Revision	Description	Date	Signed	
1.0	Final	02 June 2023	Graeme Kennett	













Acknowledgement

This report has been prepared for the sole and exclusive use of 2ZLF Ltd in accordance with the scope of work presented in Mabbett & Associates Ltd (Mabbett) Additional Services Letter Agreement (313306/ASL/GK), dated 17 May 2023. This report is based on information and data collected by Mabbett. Should any of the information be incorrect, incomplete or subject to change, Mabbett may wish to revise the report accordingly.

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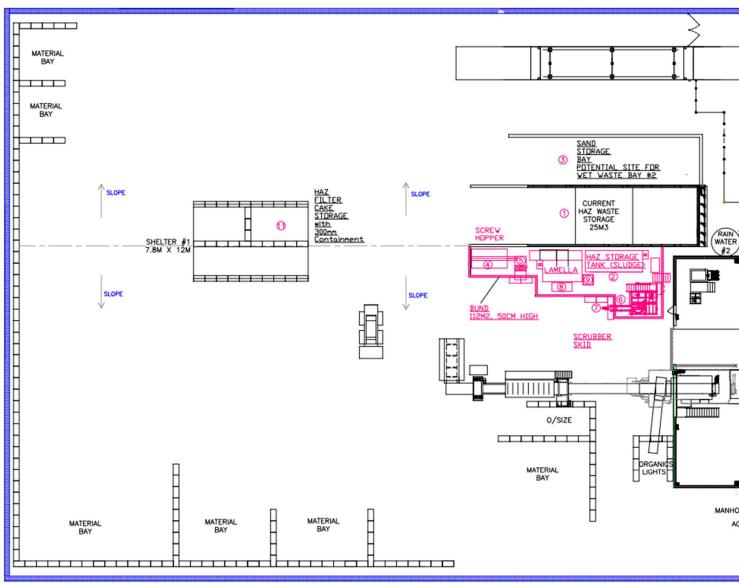
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Section 1.0: Site Details

1 Site details	
Name of the applicant	2ZLF LIMITED
	WEST MEADOWS WASTE RECOVERY FACILITY
Activity address	Downing Road
•	West Meadows Industrial Estate
	Derby
Postcode	DE21 6HA
National grid reference	SK 36818 36163
Site entrance (What3Words)	hears.ample.dips
Previous use	Industrial unit
Document reference and dates for Site	Baseline Report
Condition Report at permit application and surrender	23 rd May 2023
Document references for site plans	Plan showing location of installation – GPP/2ZLF/D/13/01
(including location and boundaries)	Plan showing installation boundary – GPP/2ZLF/D/14/05

Section 2.0: Introduction

2.1 Report context

This Dust Management Plan (DMP) has been prepared as part of the management of the Waste Recovery Facility at the West Meadows Industrial Estate. It has been produced in accordance with Environment Agency's 'Dust & Particulate Emission Management Plan' Template.

The report identifies the potential causes and effects of dust and describes the measures that will be in place to prevent the occurrence of dust and to ensure that the risk of adverse impacts on potential nearby receptors is minimised.

2ZLF propose to vary the current permit to allow for an increase in the volume of hazardous wastes which are processed at the site. The facility currently has a permitted throughput of 65 000 tonnes and this variation does not seek to increase this amount, rather it seeks to increase the hazardous waste treatment portion of the 65 000 tonnes to a maximum of 26 000 tonnes (maximum 100t day), leaving the remainder of the original tonnage dedicated to non-hazardous treatment.

Section 3.0: Permitted Activities

3.1 Background

The site is located approximately 1km east of Derby and is centred within the West Meadows Industrial

Estate.

Access for staff and visitors to the site is achieved via Downing Road off Chequers Road which is located

to the north of the site. HGV access is via the A52 towards the north of the site. The immediate

surroundings of the site largely comprise an industrial setting with the nearest residential dwelling located

approximately 500m east, northeast of the site off Highfield Cottages.

The site consists of designated waste reception and storage areas for the hazardous and non-hazardous

waste activities. Amenities for the entire site include a weighbridge for incoming wastes and a quarantine

area for non-conforming incoming wastes (which will ensure that quarantined wastes do not contaminate

those which have been deemed suitable for treatment) as well as two soil washing plants - one for

hazardous wastes and one for non-hazardous wastes.

Wastes contaminated with heavy metals and/or hydrocarbons/oils will be brought onto site in

enclosed/sheeted vehicles. After initial inspection at the weighbridge, vehicles will be directed to the

reception area and physically inspected. Once accepted, the loads will be loaded into specially provided

bays and covered prior to treatment.

Treatment activities will consist of the washing of hydrocarbon and heavy metal contaminated wastes.

3.2 Operating Hours

The standard Operating Hours for the facility are as follows:

Monday to Sunday: 00:00 – 23:59

The site will not undertake operations on Public Holidays.

As detailed in the Environment Permit Application, 2ZLF undertake the following Disposal and Recovery

operations as outlined in the table below:

Table 3-1 Recovery and Disposal Activities

R&D Code	Activity
	Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary
R13	storage, pending collection, on the site where it is produced)
R3	Recycling/reclamation of organic substances which are not used as solvents
R5	Recycling/reclamation of other inorganic compounds
	Physico-chemical treatment not specified elsewhere in this Annex which results in final
D9	compounds or mixtures which are discarded by means of any of the operations numbered
	D1 to D12
D15	Storage pending any of the operations numbered D 1 to D 14 (excluding temporary
	storage, pending collection, on the site where the waste is produced)

3.3 Permitted waste types

Waste types to be accepted into the facility are set out in the Permit.

3.4 Environmental Management System

2ZLF operate their own management system which will ensure that:

- The risks that dust pose to the environment are identified;
- The measures that are required to minimise dust risks are identified;
- The activities are managed in accordance with the dust management system;
- Performance against the dust management system is audited at regular intervals; and
- Compliance with the environmental permit.

The dust management system is reviewed at least once year or in response to significant changes to the activities, accidents or non-compliance.

3.5 Dust records

2ZLF will keep records of a number of performance and environmental indicators (e.g. activities occurring on site, wind direction etc.). Records will be legible and easily retrievable on request (either in hard copy or electronically). Records will be kept in line with the conditions of the Environmental Permit issued for the site. For example, the following records will be kept:

- Records of potentially polluting events will be kept at the facility during the life of the permit;
- Waste inputs to all processes will be recorded 'en masse'; and
- Storage locations and amounts of materials.

The above list is not exhaustive. Records will be kept satisfying the requirements of the Environmental Permit and all other relevant statutory legislation.

3.6 Incidents and non-conformances

2ZLF has procedures in place to account for the potential for incidents and non-conformances which may affect the environmental performance of the facility. The procedures as set out below show how any abnormal operation including malfunction, breakdown or failure of plant, equipment or techniques will be dealt with to ensure that normal operation of the facility is regained promptly.

As a minimum, procedures:

- Detect abnormal operation and investigate the causes;
- Assess the information and decide on the appropriate course of action;
- Retain normal operation in the short term; and
- Prevent against the reoccurrence of the problem in the long term.

As detailed the EMS, the procedures ensure that non-conformances are reported, investigated and rectified, and that failures and weaknesses are prevented.

The EMS provides a means for the management system and the environmental performance of the facility to be evaluated. This is accomplished through regular workplace inspections and includes, where appropriate, identification of areas where improvements are required.

Regular review of the EMS and its procedures forms an essential role in ensuring that the systems and procedure remain appropriate to the site activities and legal requirements (including compliance with the Environmental Permit) throughout the lifetime of the facility.

To assist in the reporting of incidences, 2ZLF will display a notice at or near the site entrance with the following information clearly visible:

- Company name;
- Permit number;
- Emergency contact name and the permit holders' telephone number;
- A statement that the site is permitted by the Environment Agency; and
- Environment Agency national number (08708 506 506) and incident hotline number (0800 807060).

3.7 Complaints procedure and daily log

2ZLF has in place procedures for any complaints received from the operation of site activities. As a minimum 2ZLF will record the following upon receipt of a complaint by either a member of the public or if notified by the Environment Agency:

- Name and address;
- Date and time;
- Details of complaint;
- Activities being undertaken at time of complaint; and

Wind direction;

Additionally, 2ZLF also undertake the following actions upon receipt of a complaint:

- The site manager is informed;
- The site boundary and the site of the complaint is checked for dust to substantiate the complaint;
- 2ZLF review activities occurring on site at the time of the complaint;
- The source of the dust is traced and remediation action undertaken, including the checking of equipment, seals etc, housekeeping procedures and revising drop heights;
- Following a substantiated complaint, 2ZLF review the dust management techniques, including reviewing the site layout and treatment arrangements; and
- 2ZLF shall report back on the above actions to the Complainant or the Environment Agency as appropriate.

2ZLF maintain a daily log which tracks deliveries to and from the site, note any abnormal weather conditions, any incidences at the site such as dust, noise, spills or discharges or any malfunction with regards to machinery.

The site diary records all housekeeping activities.

3.8 Maintenance procedures

A planned preventative maintenance programme (PPM) is in place to minimise the risk to safety, health and the environment by ensuring that all appropriate items and elements within the site are serviced and inspected on a regular basis or to the manufacturers' maintenance schedules.

Details of faults, breakdowns and repairs are documented, and records are maintained at the site office. Faults and breakdowns will be investigated, and the service schedule revised if necessary.

Section 4.0: Fugitive Dust and Particulate (PM₁₀) Management

4.1 Air Quality Management Zone

The site is situated within the City of Derby. A search of the Derby City Council's website has identified that the site is within 200m of an air quality management area which is located on the A52. The area has been designated as such due to high levels of NO₂ from vehicle exhaust emissions from diesel and petrol cars. The report has specified that no areas have exceeded the air quality objective with regards to particulates.

As the site is not within an Air Quality Management Area (AQMA), the impacts of the site on air quality have not been discussed further in this document – however to ensure that the site activities do not impact on the environment, a monitoring regime and management techniques have been produced and are outlined below.

4.2 Receptors

There are no sensitive receptors within 1,000m of the facility that have been identified. As the Dust Management Plan looks at the 'worst case' scenario, any receptors at a distance greater than 1 km (except for habitats) have not been assessed unless they have the potential to be impacted.

4.3 Dust Management

4.3.1 Source/Pathway

The site manager will be responsible for undertaking all dust management procedures. The site foreman will be responsible if the site manager is not available.

The effects of dust may be both immediate and long term, presenting a significant burden for the operator and regulatory agencies. The potential causes of a dust are identified within *Section 2.2.4 of Sector Guidance Note 5.06 – Treatment of Hazardous and Non-hazardous waste* and are reviewed below with reference to EA guidance and provide an assessment of the source and potential pathway for pollution:

- Open vessels;
- Sampling activities;
- Storage areas (for example bays, stockpiles, lagoons etc);
- The loading and unloading of containers;
- Transferring/bulking up of material from one vessel to another;
- Conveyor systems;
- Poor building containment and extraction;
- Potential for by-pass of abatement equipment (to air or water);
- Spillages;
- · Accidental loss of containment from failed plant and equipment; and
- Tanker and vessels manhole opening and other access points.

4.4 Agency guidelines for management of fugitive dust

The facility is an installation as per Schedule 1 of the Environmental Permitting Regulations 2016, and so is subject to the requirement to meet Best Available Techniques (BAT). The Operator has adopted the relevant BAT measures for dust control as follows:

- Ensuring stockpiles are situated within the most sheltered areas of the site;
- Provision of wind breaks in the form of a perimeter fence;
- Ensuring minimal handling of material;
- Placing materials within designated and areas and bays, ensuring an appropriate headroom;
- Hydrocarbon treatment of waste will be undertaken within an enclosed treatment facility;
- Where dust creation is unavoidable, use of sprays, stockpile management techniques, windbreaks and so on;
- Regular road cleaning (avoiding transfer of pollution to water and wind blow);
- Clearing mud on highways at the end of each working day, unless it is impractical or unsafe to do so;
- All conveyors will be enclosed and spray bars will be fitted to machinery handling waste to control fugitive emissions;
- Regular inspection of all infrastructure shall be undertaken; and
- Regular housekeeping including cleaning of site equipment shall be undertaken, at a minimum of once per day at the close of play.

4.5 Meteorological conditions

4.5.1 Wind direction

The main controlling factor in determining the pathway of odour is the ambient meteorological conditions. This is fundamental to the transportation of dust to sensitive receptors.

The prevailing wind direction will determine which receptors will be affected and at what frequency. The closest weather station to the site to have recorded weather data is in Derby/Chaddesden, located north of the West Meadows Site which shows that the prevailing wind direction is towards the south-east and the north-east. Therefore, it is sensible to assume that receptors to the north-east and north-west are most likely to be impacted upon by dust from the site.

4.5.2 Wind velocity

Wind velocity will affect the distance a dust mission will travel. Conversely, increased wind speed could also beneficially improve dispersal. However, those receptors closest to the site itself are still at the highest risk of a negative impact.

4.5.3 Air temperature

Warm air may carry dust upwards by convection for their dispersal away from the site. However, warm weather will encourage the onset of biodegradation of exposed or temporarily stored wastes and therefore increase dust potential. Therefore, in the summer months the risk of dust emissions is greater and this must be taken into account in the site procedures.

4.5.4 Adverse weather conditions

Unusual weather conditions, such as a heat wave, may increase the risk of dust emissions from the site. Site staff will be vigilant to unusual trends in the meteorological data or forecasts which may indicate strong winds or extremes of temperature which may cause a potential problem.

4.5.5 Topography

The topography of the site and the surrounding area can influence the potential dispersion of dust emissions. The site is situated within a commercial/industrial area within the West Meadows industrial estate. The site is located upwind of surrounding industrial/commercial premises and downwind of the railway line located south of the site.

Section 5.0: Dust Emissions Risk Assessment and Management Plan

Table 5-1 Dust Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed		m and what	Managing the Risk	Assessing the risk					
Hazard	Receptor	Pathway	Hazard	Receptor	Pathway	Hazard			
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What has the potential to cause harm?			
To Air									
Site Surfaces and Equipment	Site Workers Occupiers of Domestic dwellings Industrial and commercial premises	Atmosphere	The site employs good housekeeping criteria and is on a constant lookout for any dust build up or any spills that could lead to fugitive emissions. Any build-up of dust on surfaces and equipment will be removed as soon as is practicable utilising either a brush and shovel, or if this is not practicable, shall be washed down. All equipment is inspected at both the start of the workday and the end of the workday and at intervals in-between to ensure that there is not a build-up of particulates on surfaces and equipment. Sufficient runoff from the site yard will be retained to facilitate dust suppression and cleaning of equipment. Should there be an insufficient amount of water available, the site will either buy in water or shall utilise mains water. The Site Manager is responsible for checking wind strength and direction and for maintaining the housekeeping schedule, if the site manager is not available, then a suitably qualified person will be designated for that role. The Site Manager or designated person will also consider stopping operations at the site if operations are found to be causing unacceptable fugitive emissions (as substantiated by the Environment Agency).	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions stop this happening.	Smothering. Nutrient enrichment. Nuisance – dust on cars, clothing, vegetation, etc.	Not significant.			
Vehicle Movements	Site Workers Occupiers of Domestic dwellings	Atmosphere	The facility has clearly defined routes for vehicles coming to and leaving the site as shown on Drawing No. 2ZLF/IV.187.20/LAY/01. All trucks delivering waste to and from the site will be sheeted to prevent dust being generated while waste is in transit. All vehicles exiting the site are required to do so via the wheel wash and those vehicles that are obviously dusty will be washed down prior to exiting the site. Water from the onsite water tanks (water from the post treatment storage area and water which has been cleaned in the effluent	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions stop this happening.	Smothering. Nutrient enrichment. Nuisance – dust on cars, clothing, vegetation, etc	Not significant.			

	Industrial and commercial premises		treatment tank) is used to dampen site roads if deemed necessary. Sufficient runoff from the site yard is retained to facilitate dust suppression. If sufficient water is unavailable, the site will consider employing a road sweeper. Small dust or particulate deposits shall be removed with a brush and shovel whenever possible. A speed limit of 10mph will be enforced onsite to prevent the disturbance of dust. Visual monitoring is undertaken in accordance with permit conditions and 2ZLF's own management system.			
Waste Reception Area	Site Workers Occupiers of Domestic dwellings Industrial and commercial premises	Atmosphere	If waste which is received into the waste reception area(s) will give rise to dust emissions, the waste will be dampened down to control fugitive emissions and moved to the storage bays as soon as is practicable.	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions stop this happening.	Smothering. Nutrient enrichment. Nuisance – dust on cars, clothing, vegetation, etc.	Not significant.
Storage of waste	Site Workers Occupiers of Domestic dwellings Industrial and commercial premises	Atmosphere	Materials is stored in accordance with Drawing No. 2ZLF/IV.197.20/LAY/01. The site contains bays which house all incoming wastes. Sufficient headroom will be maintained to prevent 'wind whip' of the wastes. Clean surface water is retained onsite and utilised to dampen stockpiles if deemed necessary when waste is being deposited in the storage area or is being removed for treatment. This ensures that the waste retains sufficient density that it will not become airborne when being moved around the site. Sufficient runoff from the site yard will be retained to facilitate dust suppression and a brush and shovel will be used for small areas where it is more beneficial to sweep up any small spills rather than dampen or wash them down. Should there be an insufficient amount of water available for dampening wastes, or cleaning of storage surfaces and facilities, the operator will use mains water.	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions stop this happening.	Smothering. Nutrient enrichment. Nuisance – dust on cars, clothing, vegetation, etc	Not significant.

			If it becomes apparent that the removal of wastes to and from stockpiles will cause an impact on nearby receptors, the site manager or person who has designated authority, may determine operations are to cease with regards to moving wastes to and from stockpiles. If this situation occurs, delivery vehicles will be redirected from the site. If dust from stockpiles does become an operational issue at the site, the site manager will review the site infrastructure. Visual monitoring of fugitive dust emissions will be undertaken during daily operations, in accordance with permit conditions and 2ZLF's management system.			
Handling of Materials (transfer)	Site Workers Occupiers of Domestic dwellings Industrial and commercial premises	Atmosphere	The operator ensures that drop heights are minimised while transferring material around the site, including when depositing material within the reception area, within bays and within treatment areas and within post treatment areas. The operator ensures that dusty material is not exposed for longer than is necessary. If it is determined that the waste is particularly dry, or external factors could impact on the waste, the operator will dampen waste prior to removal. If it is deemed that the handling of wastes is likely to cause an unacceptable impact at offsite receptors, the operator will suspend all handling of materials and delivery vehicles will be diverted. All waste delivery vehicles that arrive on site will be covered (sheeted) or be within fully enclosed vehicles, as will all vehicles that remove waste from the site. Visual monitoring will be undertaken in accordance with permit conditions and 2ZLF's management system which ensures that all site operatives are vigilant with regards to dust and any dust emissions which may cause an issue off site, are reported to the site manager.	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions stop this happening.	Smothering. Nutrient enrichment. Nuisance – dust on cars, clothing, vegetation, etc.	Not significant.

Treatment Processes	Site Workers Occupiers of Domestic dwellings Industrial and commercial premises	Atmosphere	The treatment activity undertaken is within an enclosed system and is water based, therefore the treatment activity is unlikely to cause dust emissions. If loading of wastes into the hopper are likely to lead to unacceptable dust emissions, the waste will be dampened down prior to loading and the hopper may be fitted with spray bars if this is considered necessary. If dust emissions are caused by the soil washing plant, the Site Manager or designated Site Manager will determine if activities need to temporarily cease to prevent further emissions. If activities are to cease, the site manager will determine if the waste can remain on site within its containment or be removed from site to another suitable facility (this will depend on the potential for the waste to produce dust and odour).	Dust could potentially reach the nearby dwellings when a strong wind blows in their direction. Management actions stop this happening.	Smothering. Nutrient enrichment. Nuisance – dust on cars, clothing, vegetation, etc.	Not significant due to management techniques in place.
Mud from vehicle movements	Local roads	Tracked on vehicle wheels.	The activity is unlikely to lead to mud from vehicle movements due to the housekeeping measures in place. Vehicles leaving the site do so via the sites wheel wash and any vehicles which are likely to 'shed dust or mud' will be washed down prior to them leaving the site. If mud is deposited on the road, a road sweeper will be utilised.	Unlikely due to measures in place	Local nuisance. Mud on roads is unsightly and can increase the likelihood of road traffic accidents.	Not significant.
Litter						
Windblown litter	Occupiers of Domestic dwellings Industrial and commercial premises	Air	The proposed activities are unlikely to cause litter. A vigilant watch for litter will be undertaken by site operatives. In the unlikely event that litter is generated by the activity, the Site Manager will implement a litter collection as necessary.	Unlikely due to measures in place.	Local nuisance	Not significant due to nature of waste received and management techniques employed.

Section 6.0: Conclusion

The West Meadows Waste Recovery Facility, operated by 2ZLF is situated within an industrial area close

to the A52 in Derby.

The site itself is not within an air quality management zone but is located approximately 200m south of an

Air Quality Management Area, which has been designated as such due to NO2 levels.

In accordance with Environment Agency Guidance this dust management plan to show how the site will

be operated to prevent the facility from causing impacts on nearby receptors.

The information contained within the assessment detailed in Table 5-1 above indicates that site activities

are unlikely to cause any disturbance to nearby sensitive receptors from the treatment techniques, storage

and management techniques employed by the applicant.

The management techniques will ensure that any fugitive emissions will be adequately contained and

managed. Due to the measures in place, operations are unlikely to produce dust.

2ZLF actively employ mitigation measures on site which are in line with Environment Agency Guidance

and BAT. Headroom will be maintained within storage bays, wastes will be dampened down or may be

covered to prevent dust emissions and the site will employ good housekeeping techniques, such as a daily

sweep of the yard. In addition, regular site walkovers will be undertaken.

The Operator has sufficient water supply on site which can be utilised for dust suppression during waste

treatment practices, on site roads and onsite infrastructure and during storage, both pre and post

treatment.

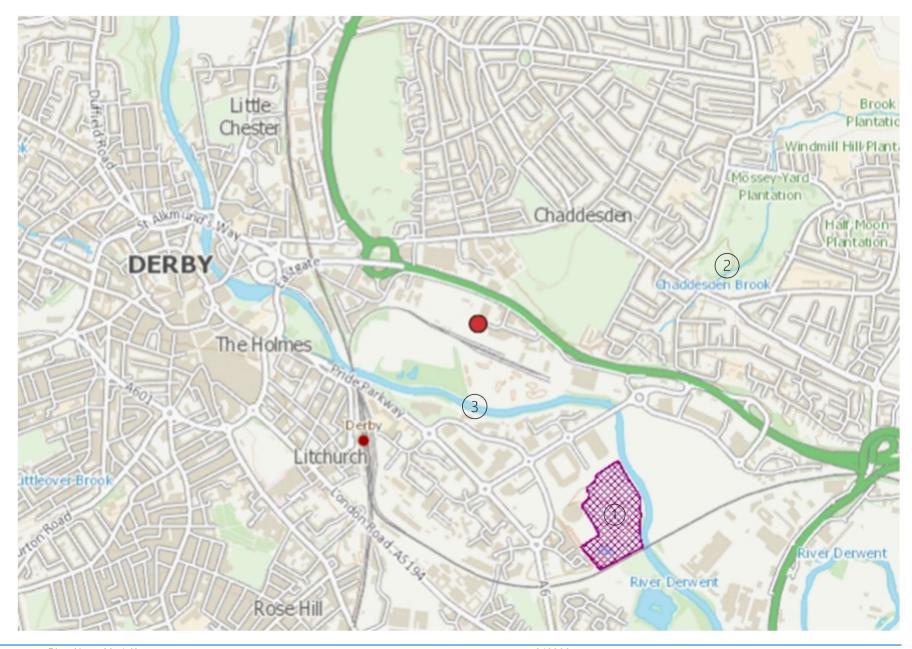
Due to the above measures, it is concluded that it is unlikely that local receptors will be impacted by the

proposal.

2ZLF Limited: Dust Management Plan (June 23, 1.0) © 2023. Mabbett & Associates Ltd

Appendix A: Off-site environmental receptors plan

- 1 The Sanctuary
- 2 Chaddesden Brook and Mossey Yard Plantation
- 3 River Derwent



Appendix B: Site plan (with potential diffuse dust sources)

Diffuse dust source X

