DUST MANAGEMENT PLAN

Simonswood Industrial Estate, Stopgate Lane, Simonswood, Knowsley, Merseyside, L33 4YB

Simonswood Properties Limited

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1 Introduction

1.1 Site history / background

1.1.1 Oaktree Environmental Ltd have been instructed by Simonswood Properties Limited to prepare a Dust Management Plan (DMP) for their site situated at Simonswood Industrial Estate, Stopgate Lane, Simonswood, Knowsley, Merseyside, L33 4YB.

1.1.2 All references to the site in this DMP shall mean the permitted boundary extracted from the EP.

1.1.3 This DMP will allow Simonswood Properties Limited to implement an action plan should the site operatives detect the presence of airbourne dust escaping beyond the site boundary, receive complaints from local business or residents and should the EA suspect dust emissions from the site during an inspection.

1.2 Site location

1.2.1 The site is located at Simonswood Industrial Estate, Stopgate Lane, Simonswood, Knowsley, Merseyside, L33 4YB as shown on Drawing No. 2358-003-03.

1.2.2 **AQMQ** – The site is not located within an AQMA area.

1.3 Facility overview

1.3.1 The site is operated as a bespoke permit and will accept HCI and Inert/CDE wastes. The waste accepted as part of the physical treatment activity will undergo further treatment predominantly by way of the wash plant; however, crushing and trommelling may also be carried out on site to further define the waste.

1.3.2 The main issue of dust could arise from, but not limited to the following:

i) Waste reception and tipping areas;
ii) Manoeuvring of vehicles tracking dust

iii) Operation of mechanical treatment plant

iv) Storage and loading areas comprising potentially 'dusty' wastes.

1.3.3 In addition to this document, the site will also operate in accordance with a number of site-specific documents; namely an Environmental Management System (EMS) which will make reference to this DMP.

1.3.4 All relevant operational staff will be suitably trained to ensure they understand the purpose of this DMP and understand what actions need to be taken in event of a complaint. Training will be taken by the site manager, technically competent manager/s (TCM/s) or third-party Dust / Air Monitoring Consultant.

1.3.5 It is worth noting that the wash plant itself operates with the continuous use of water and therefore waste will be dampened down during processing, ensuring that no dust arises from or during the treatment process.

2 Sensitive receptors

2.1 Receptor Plan

2.1.1 A sensitive receptors plan (SRP) has been produced to accompany this DMP and is shown in Appendix I referenced as on Drawing No. 2358-003-04. The receptors highlighted are those which are considered to be at risk by dust and dust particles generated by the site. The SRP also details the prevailing wind direction.

2.1.2 The wind rose used on Drawing No. 2358-003-04 has been taken from Woodvale which is the closest available data. The topography of the site is flat and similar to that at the monitoring location; so given its proximity and topography it is deemed that this wind rose diagram is the most suitable for the site

2.2 List of receptors

2.2.1 The receptors listed from the receptor plan are also shown in the table below with approximate distances to these properties.

Table A – Distances to Selected, Representative Sensitive Locations

Boundary	Receptor	Approximate distance from centre of site (m)
Northhwest	Residential Property on Stopgate Lane	300
Northhwest	Residential Property on Siding Lane	375
North	Simonswood Brook	433<
Northeast	Newbridge Farm Park Homes and Fishing Lake	500<

2.2.2 Other receptors not shown in the above table are illustrated on Drawing No. 2358-003-04.

2.3 Other dust and emission sources

2.3.1 Other dust/particulate emitting operators are tabulated below in the table below.

Table B – Other Dust/Particulate Emitting Operators

Company	Address	Type of Business	Approximate distance & location from site boundary (m)
R Draper Ltd	Stopgate Lane	Waste Management Facility	Adjacent / East
L.E.L Civils Ltd	Stopgate Lane	Waste Management Facility	710/ Southwest
Kealshore Ltd	Stopgate Lane	Waste Management Facility	1400/ Southwest

3 Site operations

3.1 Waste deliveries/removals

3.1.1 Waste will be delivered to the site via the existing access which is surfaced with concrete. Upon arrival, an operative will direct the driver to the relevant area on site.

3.1.2 Waste will arrive and depart at/from the site primarily consisting of Simonswood Properties Limited's own vehicles/contracts and all loads are either sheeted or contained upon delivery and removal.

3.1.3 Any third-party deliveries to the site will be advised that any potentially dusty loads be suitably sheeted. If the customer has the capability to wet down potentially dusty loads, they will be asked to do this. If a customer is unable to place a dust sheet on a vehicle or wet a load they will be prohibited from loading/unloading until suitable containment has been provided. In more extreme cases customers may be asked to leave the site immediately.

3.1.4 Following initial inspection of the load, if any loads are found to be containing high levels of powders, it will be rejected in accordance with the site's rejected waste procedure.

3.2 Site infrastructure

3.2.1 The site infrastructure is clearly detailed on Drawing No. 2358-003-03 which is shown in Appendix I of this DMP. The drawing illustrates the following areas on site:

i) Site surfacing
ii) Location of buildings
iii) Reception and storage areas of waste
iv) Location of fixed plant/equipment i.e. wash plant
v) Locations of mains water points and vehicle wash-down areas (if applicable)

3.3 Wastes with dust potential

3.3.1 The following common waste which will be present on the site have the potential to create dust will be:

- 17 01 07 - mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
- 17 05 04 - soil and stones other than those mentioned in 17 05 03
- 17 09 04 - mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
- 19 12 09 - minerals (for example sand, stones)
- 19 12 12 - other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
- 20 02 02 - soil and stones

3.3.2 Please refer to the Risk Assessment Tables outlined in Section 5.7 and the control measures outlined in Section 4 for details of the handling procedures and mitigation measures in place for wastes stored at the site.

3.4 Overview of site operations

3.4.1 Once the wastes have been accepted at the site the load will be processed. Loads which are known to be non-hazardous will be accepted at the site and will be either directly loaded into the feed hopper of treatment plant or into the relevant stockpile. Waste is predominantly processed using the wash plant. Waste may also be processed using a crusher/screener; there is no fixed location for standalone crusher/screener plant as the location can constantly vary throughout the lifetime of the operation. The material from all processing plant is discharged via conveyor.; these conveyors are not covered as the site has suitable alternative suppression measures in place which are detailed in Section 4 of this DEMP.

3.4.2 Once materials have been put through the treatment process, they are either directly loaded into a vehicle for export off site or securely stored in dedicated stockpiles.

3.4.3 During periods of high winds (>30mph) stockpile heights are reduced.

3.4.4 Continuous visual monitoring will be undertaken by site staff to ensure that stockpiles heights are compliant and that freeboards are retained.

3.5 Processed waste types/product

3.5.1 Once waste has been subject to treatment, the material will be contained and stored in a secure area or secure bays.

3.6 Mobile plant and equipment

3.6.1 All mobile and fixed plant on site including vehicles in the fleet are subject to annual manufacturer maintenance to ensure proper working order in the form of service contracts.

3.6.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:

- Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
- All plant engines and/or generators will be powered-down and completely shut off prior to cessation of operations on any given day.
- Plant which is not in use for any extended period is stored at least 6 metres from waste.
- All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground.
- Dust from processing operations on site can settle throughout the working day onto processing plant, plant exhausts and engine parts so a fire-watch will be implemented after cessation of works and equipment powered down for 1 hour each day to remove any dust/fluff using brushes, hoses etc... Any build of dust/fluff will be removed from the equipment and deposited into a container to await removal from site and site management informed.

3.6.3 A ‘no-idling’ policy is in place which ensures that engines are switched off when vehicles or plant are not in use. This policy will ensure that tail pipe emissions are significantly reduced.

4 Dust management & control measures

4.1 Responsibility for implementation of the DMP

4.1.1 The site manager, site foreman and TCM (site management) will be responsible for the implementation of the DMP. Deputy site managers, senior plant operatives will also be identified in order to support the site manager. Full job roles at the site are clearly demonstrated in the operator's Fire Prevention Plan.

4.1.2 Site management will ensure the DMP is reviewed annually or sooner in the event of complaints/dust issues; whichever is the soonest, with any amendments or alterations put in place as soon as reasonably possible.

4.1.3 The above staff with the aid of Oaktree Environmental Ltd (if required) will be responsible in providing training to relevant operational staff to ensure they are deemed competent and understand the contents of this DMP. Staff will undergo re-fresher every 12 months or in the event of a dust complaint / issue or the implementation operational changes.

4.2 Sources of fugitive dust/ emissions

4.2.1 The main dust/emission sources which arise from site are detailed in the following table below:

Table C – Dust emission source table

Source/Plan Ref	Description
Loading Area	The main tipping area or waste reception area
Loading of waste into mechanical plant	Loading waste into the Treatment Plant
Various sources	Output and storage of waste arising from treatment
Various sources	Vehicles accessing/aggressing the site tracking dust on to or off the site
Various sources	Dust being blown around from site surfaces or dusty wastes not contained
Various sources (sorted waste bays)	Loading waste materials back on to vehicles for export from site
Various sources	Particulate emissions from the exhaust of vehicles/plant/machinery on site (NO2).

4.3 Control Measures (staff training/daily inspections)

4.3.1 Good housekeeping and site practices are vital to ensure that the impacts from fugitive dust and debris impacts are controlled. The site undertakes regular inspections throughout the day for the presence of dust/debris with corrective actions taking place upon discovery i.e. wetting down stockpiles/surfaces, using a road sweeper and reducing stockpile heights (if necessary). Operational staff are suitably trained in procedures to keep the levels of dust /debris to a minimum including prevention and mitigation. The visual inspections will be once-a-day minimum and more frequent during dry/windy/warm weather conditions (i.e. morning, afternoon and evening). The site supervisor will also make a formal visual inspection of dust emissions at least three times per day and record the results of monitoring in the site diary/record forms. Inspection points may vary on site so are not included in this DMP.

4.3.2 The areas listed in the table above i.e. where dusts arise or build up will be continuously monitored throughout the working day and cleaned on a daily basis; paying special attention to the machines where dust is more likely to build up.

4.3.3 Dust from processing/treatment operations on site can settle at the end of the shift / working day so an end of day inspection of plant/equipment/machinery will be implemented after cessation of works and any build-up of dust/fluff will be removed using on-site hoses and rags and deposited into a wheelie bin and comments noted in the daily inspection sheet.

4.3.4 The plant/machinery used at the site are mobile (with exception of the wash plant), and every month they are manoeuvred to an alternative area of the site; this allows any areas that dust has accumulated beneath to undergo a rigorous clean using the same methods as above.

4.3.5 The operator will avoid fugitive dust emissions by committing to the following housekeeping (inclusive of frequency):

1. Maintain a clean, well-organised site **(Continuous)**
2. Use suppression systems to dampen down potentially dusty wastes **(Continuous)**
3. Clean equipment that has been in contact with dusty materials **(Weekly)**
4. Carry out a deep clean of the reception and external areas once a quarter and record this in the site diary **(Quarterly)**
5. Concrete floors designed with a slope towards drainage system and designed in a way that allows easy cleaning. **(Inspected monthly)**
6. Floors sealed to prevent absorption and adsorption of dust producing residues. **(Inspected monthly)**

4.4 Control measures (boundary/containment)

4.4.1 **Waste reception and storage areas** – The waste reception/tipping area and storage locations are situated in dedicated free-standing stockpiles or within bays. The boundary treatments i.e. bunding are considered to act as wind barriers and are therefore considered a suitable measure to reduce the potential for dust escaping beyond the site. Products from the wash plant process may be stored in the bays which form part of the wash plant; these materials will be stored to 0.5m below the height of the bay and will be monitored as part of the visual inspections.

4.4.2 **Site Perimeter** – The site perimeter comprises the following:

- Approximately 4m high Earth bund with conifers (Northern, Eastern & Southern Perimeter).
- Palisade Fencing and industrial buildings (Western Perimeter)

4.4.3 The prevailing winds are predominantly from the west and south-east. The aforementioned bunds along the northern, eastern and southern perimeter; along with industrial buildings and fencing along the western perimeter will provide sufficient screening from the prevailing winds by acting as wind barriers to reduce wind whipping which will prevent dust from escaping beyond the site boundary.

4.4.4 During times of high winds (>30mph) the stockpiles be further reduced in height. The stockpiles will be further dampened down using onsite suppressions systems i.e. hoses and bowser to ensure potential dust doesn’t escape beyond the boundary.

4.4.5 As previously stated, the boundaries will prevent wind-whipping which ensures that dust does not escape from the site. The site also has sufficient suppression/mitigation measures in place which are detailed in section 4.7 and ensure that dust is not generated at or beyond the site.

4.5 Control measures – site surfacing

4.5.1 The inert & excavation waste and aggregate stockpiles will be situated on a hardstanding surface. The wash plant and associated activities (which have the potential to generate dust) are situated on a concrete surface which is engineered to ensure water will be reused through the wash plant.

4.5.2 The concrete surface reduces the risk of airborne debris such as mud, stones being tracked around areas of the site from vehicle chassis. Control measures for ensuring the concrete surface remains clear and free of dust and mud are detailed in Section 4.6 below.

4.5.3 The surface is relatively flat and any defects such as cracks, rivets will be repaired as soon as practically possible to ensure the site can be swept using a road-sweeper or similar.

4.6 Control Measures – site surfaces and vehicle movements

4.6.1 The control measures implemented by site management to minimise the risk of dust and debris emissions from dusty site surfaces and vehicle movements include:

- A permanent water supply will be made available on site during dry weather conditions to ensure that the dust suppression systems can function effectively.
- All site surfaces used for the tracking and running of vehicles and/or plant and all stockpiles of wastes which have the potential to be dust-forming are inspected morning and pre-end of shift, six days per week to remove any build-up of debris.
- The site also has access to a shovel and brushes in order to clean the site surface on a daily basis (end of each day). The site and surrounding roads will be cleaned using a sweeper (daily during conditions where mud is tracked onto surrounding highways), shovel (daily) where it is evident that mud/dust have been carried onto the roads (particularly during dry/windy conditions).

- Vehicle speed on site is restricted to 5 miles per hour. Signs are erected at relevant areas of the site, including the main access gates, to advise drivers of the speed limit. This will reduce the re-suspension of dust and particulate matter.
- Exiting vehicles will leave the site and will avoid all areas where wastes are stored or stockpiled. All vehicles will be checked before they leave the site to ensure no mud/dust can stretch beyond the site access. All incoming/outgoing vehicle loads will be sheeted.
- Any mud/dust deposited onto the public highways will be treated as an emergency and cleaned by operatives or by way of a road sweeper which would be hired-in within 1 hour of the supplier being contacted.
- Any dust/fluff cleared from mobile plant or other areas where dust/fluff could idle, the material will be deposited into one of various mobile wheelie bins which are located in several areas which do not restrict vehicle movements.

4.6.2 The site surfaces will be swept and cleared (daily) at the end of each day using the onsite shovel and brushes. The site also has access to a road sweeper which will be used during conditions when mud is being tracked onto the surrounding highways. The need for the road sweeper will be identified and actioned by the site manager during daily site inspections. The sweeper ensures that the site surface and haul road are cleared immediately to prevent dust and mud being carried onto the surrounding highways. In the unlikely event that mud has been tracked off site onto the surrounding highway, it will be treated as an emergency and a road sweeper will be used immediately (i.e. within 1 hour).

4.7 Control Measures – site suppression

4.7.1 **Bowser/high pressure hoses** – The site benefits from a bowser and hosepipes; these can be utilised to dampen down surfaces and for suppression via spraying potentially dusty wastes. These suppression methods also ensure that stockpiles are controlled with moisture continuously to prevent the materials becoming friable. They will locally suppress dust at the site and provide full coverage of onsite stockpiles by spraying/dampening piles to reduce potential dust levels.

4.7.2 **Wheel wash Facility –** The site benefits from a wheel cleaning facility which is used to clean the wheels and bodies of vehicles prior to them egressing from the industrial estate in line with the procedure detailed below.

4.7.3 Before exiting, all vehicles will be stopped and visually inspected by trained staff to reduce the risk of dust/mud/debris being tracked off-site. If the member of staff inspecting the vehicle is satisfied, the vehicle is suitable to egress and will be directed to the exit. If the vehicle is not suitable to egress, the staff member will instruct site operatives to use the wheel cleaning facility to wash down the wheels and bodies of vehicles. Following this, a final inspection will be carried out by the trained staff member before any vehicle can leave the site. If the vehicle still contains traces of mud and debris the process will be repeated until the vehicle is clear and the potential of mud being tracked onto roads is eliminated

4.7.4 **Treatment Plant Suppression –** All waste loaded into the mechanical treatment plant will pre-wetted / sprayed before they are treated using the measures detailed in sections 4.7.1.

4.7.5 **Wash Plant –** The wash plant is a wet process and involves the continuous use of water ensuring that material being processed is wetted down and to prevent the materials becoming friable. This will locally suppress dust at the site and provide full coverage for materials being processed by the plant to reduce potential dust levels.

4.7.6 The water for suppression is taken from mains water and don't require the use of a pump.

4.7.7 Site management will be responsible for ensuring that all suppression techniques mentioned above are used appropriately and effectively to ensure potential dust levels are being reduced.

4.8 Control measures – water supply

4.8.1 A permanent water supply will be made available on site during all weather conditions to ensure that the dust suppression can function effectively. All external water pipes will be lagged to prevent frost damage during winter months and the operator will set up a notification alert system with the Met Office in the event of a drought being imminent. This

will enable the operator to source water in the short and long term and store in tanks prior to a potential water ban.

4.9 Control Measures – storage of waste

4.9.1 The control measures implemented by site management to minimise the risk of dust and debris emissions from the continuing storage of wastes and the loading/unloading of these include:

- Stockpiles of waste within bays on the plant will be kept to 0.5metres below the height of the bay which is considered appropriate for this type of facility given the nature surrounding receptors.
- If required, stockpiles will be sprayed with water during periods of dry/windy weather to prevent excessive drying and dust formation.
- Drop heights will be kept to a minimum (i.e. 1 – 2m) to prevent dust emissions where adjustment permits.
- As standard, the removal of material from stockpiles will be carried out from the most sheltered location adjacent to the containment walls or on the lee-side of free-standing stockpiles. Stockpiles will be pre-wetted and sprayed during loading operations.

4.9.2 The site comprises an existing inert & excavation waste and aggregate stockpile, this stockpile already exists at the site and has been subject to many periods of rainfall; the rain will have ensured that all finer particles have migrated vertically and become entrained within the stockpile leaving coarser material on the surface which would be significantly less susceptible to wind-whipping. When any material is excavated from the stockpile face and transferred to the treatment plant, the face of the stockpile will be managed by dampening it down using the onsite bowser and water hose to ensure that dust does not become airborne. In addition to specifically dampening down areas that have been excavated the site will use the bowser throughout the day as a part of general dust management.

4.10 Control measures – vehicle movements and plant

4.10.1 All HGVs and plant have the latest Euro 6 engines and are serviced by main agents under contract to ensure any particulate emission impact is reduced to an absolute minimum.

4.10.2 As discussed previously, a no idling policy is in place which ensures that engines are switched off when vehicles or plant are not in use. This policy will ensure that tail pipe emissions are significantly reduced.

4.10.3 The site will follow the first in first our principle to reduce additional movements. In summary, waste will be tipped from the HGV into waste reception areas, the oldest material will be extracted from the rear of the pile and scooped into the mobile processing plant and the same HGV will collect the processed material and remove off site. It is unlikely that vehicles will access/egress the site unladen

4.11 Control Measures - Loading and Unloading Vehicles

4.11.1 The operator of the loading plant will direct vehicles to a position and location which reduces wind whipping of loaded material i.e. the lee side of the loading plant. Should the loading and unloading be carried out during periods of dry or windy weather or if the material is considered finer/dusty material, stockpiles will be further dampened down prior to and during loading operations.

4.12 Control measures – Standard practice / Triggered

4.12.1 All site suppression, prevention and mitigation techniques are used throughout the day as standard practice to ensure dust is not generated at the site.

4.12.2 The road sweeper will also be triggered for more frequent use (i.e. in windy/dry/warm weather) or in an emergency in the unlikely event that dust and mud escapes beyond the site boundary.

5 Dust management risk assessment model

5.1 Fundamental considerations

5.1.1 **Source/Hazard:** A property or situation that in particular circumstances could lead to harm.

5.1.2 **Consequences:** The adverse effects or harm as the result of realising a hazard which causes the quality of human health or the environment to be impaired in the short or long term.

5.1.3 **Risk:** A combination of the probability of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

5.2 Pathway

5.2.1 Important in the assessment of a particular risk(s) and to inform the subsequent management of the risk(s) is the identification of the pathway(s) through which the risk may affect the identified receptor(s). The following are examples of pathways:

- Air
- Ground
- Water
- Direct contact / exposure

5.3 Consequences

5.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table 5.5 in Section 5.7.

Table D – Consequences

Abbreviation	Consequences
A	MINOR INJURY
B	MAJOR INJURY
C	DEATH
D	AIR POLLUTION
E	WATER POLLUTION
F	POLLUTION OF LAND

5.4 Effects of consequences

5.4.1 In order to quantify the level of risk and identify the appropriate management procedures, the potential effects must be considered, as outlined in the table below:

Table E – Potential effects

Abbreviation	Effect of Consequences	Management Required?
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

5.4.2 Note: "Management" is the action required to reduce the risk of a hazard causing a problem on site. Contingency measures are procedures which are in place to reduce the consequences of a hazard.

5.5 Risk estimation and evaluation (probability/frequency of occurrence of hazard)

5.5.1 The following table allows the likelihood of an occurrence of an identified risk to be assessed:

Table F – Likelihood

	Probability	Evaluation
1	Very likely	Could occur during any working day
2	Likely	Could occur regularly
3	Possible	Event possible
4	Unlikely	Event very unlikely

5.6 Risk assessment outcome (combination of probability & consequence)

5.6.1 The following table shows the resultant risk of an identified hazard or potential situation. This uses the hierarchy of both probability and consequence to assess the level of risk. The level of risk determines what level of management would be required in order to reduce the risk of occurrence and/or scale.

Table G – Risk assessment outcome

		Consequence			
		S	**Mo**	**Mi**	**N**
Probability	**1**	High	High	Medium	Low
	2	High	Medium	Low	Near-Zero
	3	Medium	Low	Near-Zero	N/A
	4	Low	Near-Zero	N/A	N/A

5.6.2 Where the risk assessment outcome is high, first-level management of the risk is essential, i.e. removal of hazard, implementation of major infrastructure/structural design measures to contain the risk/hazard and company policy changes to incorporate the management of the risk. All risk management measures must be supplemented with detailed induction training, spot training and tool-box talks to ensure all site staff and users are made fully aware of the risk/hazard, all potential consequences and necessary management and contingency procedures.

5.6.3 Where the risk assessment outcome is medium, the management of the risk should be tackled by management or delegates. If removal of the hazard is not possible, management will normally be met through implementing minor structural design measures or by imposing procedures for the prevention of occurrences which will be conveyed to all site staff through the appropriate training, including any contingency measures/procedures.

5.6.4 Where the risk assessment outcome is low, the management of the risk can be done wholly through appropriate training to site staff including any contingency measures/procedures.

5.6.5 Where the risk assessment outcome is near-zero, site staff should be made aware of the possibility of an occurrence and contingency measures should be readily available to all staff should they be required.

5.7 Risk assessment table

5.7.1 The following pages contain the site-specific risk assessment for the site with appropriate remedial actions, recommendations and comments included for each identified hazard, potential contaminant or situation.

5.7.2 The table also contains references to the appropriate section(s) of the site's EMS for additional management procedures.

5.7.3 As discussed in the section above, all situations which identify a risk from Low –High should be incorporated into the staff/visitor training schedule, where appropriate and acted on as required.

5.7.4 The table overleaf details the relevant pathways and receptors for each individual dust/emission source and relevant measures required to break these linkages. The control measures outlined in Section 4 will be included within these tables as well as additional specific measures.

SEE TABLES OVERLEAF

Table H – Source, pathway, receptor, abatement tables

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Assessment Outcome following action /recommendation
Dust / Particulates	Unsheeted vehicles accessing/ egressing to/from the site	Air	Site personnel / visitors Surrounding site users / occupiers Surface water Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	3	Low	Management will ensure that all site vehicles operated by Simonswood Properties Limited are adequately sheeted before accessing and leaving the site. The site will ensure the surrounding highways are maintained in good state of repair to prevent unnecessary dust being generated. A maximum speed limit of 5mph will be maintained. Any mud/dust deposited onto the public highway will be treated as an emergency and cleaned by operatives or by way of a road sweeper which should management observe significant dust build up or generation along the access road.	Very Low - Negligible
Dust / Particulates	Vehicles tipping into waste reception/storage areas	Air	Site personnel / visitors Surrounding site users / occupiers Surface water Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	2	Medium	Drop heights will be kept to a minimum to prevent dust emissions. Dust suppression methods and mitigation in place. The operator will avoid doubling handling of waste and may directly load from vehicle directly into the treatment plant if feasible.	Low
Dust / Particulates	Loading of waste into treatment plants	Air	Site personnel / visitors Surrounding site users / occupiers Surface water Flora & fauna	Air Pollution Water Pollution	Moderate	2	Medium	Drop heights will be kept to a minimum to prevent dust emissions i.e. 1m – 2m maximum above the hopper. Waste loaded into the hopper of the plant will be pre-sprayed/dowsed prior to loading.	Low – Very low

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Assessment Outcome following action /recommendation
			Residential receptors Surrounding businesses					The onsite suppression will be used throughout the operational day and during extreme weather conditions Dust suppression system in place.	
Dust / Particulates	Wastes accepted on site	Air	Site personnel / visitors Surrounding site users / occupiers Surface water Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	2	Medium	Drop heights for the unloading/loading of wastes will be kept to a minimum to prevent dust emissions i.e. 1m – 2m maximum above the hopper or ground. Waste loaded into the hopper of treatment plants will be pre-sprayed/dowsed prior to loading. The washing process is ongoing and involves the continuous use of water throughout and therefore waste is always wet throughout the process. Additional visual assessment / monitoring will be onsite and undertaken around the site perimeter in order to ensure dust is not escaping beyond the site.	Low – Very low
Dust / Particulates	Storage of wastes	Air	Site personnel / visitors Surrounding site users / occupiers Surface water Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	2	Medium	Drop heights will be kept to a minimum to prevent dust emissions. Stockpiles will be sprayed with water from the tanker to prevent excessive drying and dust formation. The process is ongoing and therefore waste is unlikely to remain at the site for any significant length of time prior to the loading, processing and removal from site. Dust suppression methods and mitigation in place.	Low – Very low

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments	Assessment Outcome following action /recommendation
Dust / particulates	Prolonged periods of dry/warm or windy weather conditions	Air	Site personnel / visitors Surrounding site users / occupiers Surface water Flora & fauna Residential receptors Surrounding businesses	Air Pollution Water Pollution	Moderate	2	Medium	Additional visual assessment / monitoring will be onsite and undertaken around the site perimeter in order to ensure dust is not escaping beyond the site. Dust suppression methods and mitigation in place.	Low

6 Monitoring and contingency measures

6.1 Monitoring and recording

6.1.1 **Visual assessment** – Site management and site operatives will make visual inspections of dust emissions around the entire site and perimeter at the beginning, middle and end of the working day. Results of visual inspections will be recorded on the daily inspection forms. Additional monitoring may be carried out during times of dry/windy weather conditions or should trained operatives observe significant levels of dust. The monitoring will be carried out while the site is operational, should it be observed that dust is being emitted from the site, notes will made as to the amount, direction and source of the dust. Site Management will review all feedback from the monitoring/inspections on a weekly basis (unless a complaint has occurred which will be dealt with in accordance with Section 7 of this DEMP) and take the required action to mitigate the issue to ensure it doesn't happen again. If dust is detected, site management and operatives will act immediately by dousing the problematic area, covering it with tarpaulin and using a (hired in) mechanical sweeper.

6.1.2 In the event of dust being visible off-site operations will reduce and contingency measures will be put in place until the situation abates. If, after the reduction of operations and implementation of contingency measures, excessive dust beyond the site boundary is still observed, then the operation should cease until the problem is fully rectified.

6.1.3 The operator will obtain prior notifications from the Met Office in advance of problematic weather conditions including high wind speeds and direction, droughts, etc. to see whether the dust suppression techniques need to be increased ahead of these events to reduce the likelihood of complaints.

6.1.4 The operator will carry out an inspection of the site and site perimeter at the beginning, middle and end of the working day to pick up if any dust or mud is present beyond the site boundary. The site undertakes the following proactive measures to ensure that dust does not escape the site prior to cessation of works i.e. reduce stockpile heights during dry/windy weather periods, dampening of wastes and general housekeeping (refer to housekeeping section)

6.1.5 If any dust is present at the end, middle or start of the day then the site will implement further reactive measures i.e. sourcing the road sweeper immediately, reducing stockpiles heights further, using tarpaulin to cover stockpiles or further dampening down of stockpiles.

6.1.6 Out-of-hours monitoring will not be regularly required as it is deemed that the processing and loading of the material is likely to give rise to the highest levels of dust emissions i.e. from use of the treatment plant. However, should it become apparent that out-of-hours monitoring is required i.e. due to stockpiles giving rise to dust that escapes beyond the boundary, site management will take the reactive measures detailed above.

6.1.7 The results of monitoring exercises and any remedial action taken will be entered into the site diary, inspection forms or logbook which is available for the EA to inspect upon request. The name of the employee undertaking the inspection will be recorded in the site diary / inspection form for each day of operation.

6.1.8 Should the monitoring conclude that a certain activity is giving rise to dust which is migrating offsite, steps will be made to reduce the impact of this activity. These may include (but are not limited to): increase in the height of bunding, further reduction of stockpile size, increased dust suppression systems and suspension of the work until high wind speeds have abated.

6.1.9 The site supervisor will be suitably trained to carry out these duties. Further information regarding training and technical competence is provided within the site's EMS.

6.1.10 Site management will also be required to make a note of any unavoidable events such as bad weather in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the local authority or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed (or, at least, in part) to the cause of the complaint.

6.2 Staff shortages

6.2.1 In the event of unforeseen staff shortages arising from illness, suspension or no-shows, the operator will make a judgement whether to reduce the number of incoming loads, thus reducing processing frequency and divert material to an alternative site. The operator will then seek further employment within a timely manner to ensure the site can continue to operate at its required capacity.

6.3 Weather conditions

6.3.1 The site will subscribe to the Met Office to receive updated weather alerts for the following weather conditions which could cause a potential on or off site dust complaint:

- High winds >30mph
- Dust escaping beyond the site boundary
- Droughts or periods of hot weather exceeding 3 major dry days which could lead to water shortages, hosepipe bans and excessive dust.

6.3.2 The site will install the following preventative measures to avoid serious dust pollution:

HIGH WINDS

- There will be no sorting, processing or treatment of any wastes which are likely to be blown around during conditions of high winds; high winds would be where it is evident where dust is escaping beyond the site.
- Vehicles leaving the site will be sheeted to comply with the requirements of the Duty of Care legislation.
- Stockpiles will be reduced to a suitable height to prevent the material escaping beyond the site boundary i.e. below the heights of boundary walls.
- Stockpiles may be covered with tarpaulin in the event the above procedures are not considered effective.
- Stockpiles will be further wetted down using the onsite suppression measures.

- In the event of extreme winds, the site will deploy the above measures and may be forced to close operations until conditions have improved.

DROUGHTS/WARM, DRY WEATHER

- In extreme cases such as a hosepipe ban or water shortage, the site will ensure there is additional water available i.e. tanks which can be used to ensure suppression techniques can still function.
- The site will contact the water company in the event of an emergency to see if the water pressure can be increased.
- Where dust is becoming a major concern then the operator will stop processing the material and cover the piles using tarpaulin until conditions or dust suppression techniques are considered effective.

6.4 Operational failure

6.4.1 The manager will be contacted by staff in the event of any operational failure such as the breakdown of plant, suppression equipment or other equipment and will decide whether operations are to continue or be suspended prior to corrective action being taken. Serious operational failures, which result in the closure of the site, will be recorded in the site diary. It is likely that, in the event of any recorded failure in mobile/loading plant, the manufacturers' engineers work in relevant locations in the UK and will be contacted to ensure alternative parts can be sourced and item the item fixed in a timely manner.

6.4.2 If there was a significant power failure or power cut, the site would not operate, doors would manually shut and no dust would be created. The site's local EA officer or department will be notified in the event of any serious operational failures to agree a suitable course of action.

6.4.3 If the site is closed and dust is still evident and leaving the site, the operator would source a back-up generator.

6.5 Liaison with Neighbours

6.5.1 In the extreme event of significant but temporary dust issues during normal operations, neighbours will be contacted to advise them of the situation and the action being taken. The EA will also be notified.

6.5.2 An open-door policy will be encouraged by the operator to enable any complaints from neighbouring premises (if received) to be dealt with immediately. The complainant will then be supplied with remedial actions taken and any procedures or measures put in place by the operator to reduce or ideally eradicate the likelihood of a subsequent complaint.

6.5.3 If any dust complaints are received, the complaint will be assigned to an operative familiar with the site's operation who will complete a 'complaints and events log', detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are: dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum). Dust issues or dust complaints will be investigated and responded to within 24 hours or sooner and suitably reviewed by the site manager who is ultimately responsible.

7 Actions when complaints are received

7.1 Complaints procedure

7.1.1 If any dust complaints are received, the relevant operator will complete a 'complaints and events log' and detailed individually on the complaints form (in Appendix II), both of which will be kept for inspection on request by the EA. Details of information to be completed are dates, nature of complaint, weather conditions at the time of the complaint, investigation details, action taken and a signature (as a minimum).

7.1.2 The operator would also be required to make a note of any unavoidable events plant/equipment malfunctions in the site diary, rather than just actual complaints received. This will ensure that if complaints are received retrospectively from either the Council/EA or directly, any circumstances which led to that complaint as a result of elements outside of the operator's control would be able to be attributed to the cause of the complaint.

7.1.3 If the source cannot be ascertained with 100% confidence, the site manager, compliance manager or TCM will either suspend or reduce the likely dust/particulate-generating activities, i.e. the loading of waste into the mechanical treatment plants.

7.1.4 If the source is within the site's control, the site manager, compliance manager or TCM will take appropriate action in terms of dust/particulate abatement, to ensure that the alarm is not re-activated. This may take the form of the following:

a) Investigating the source of the dust/particulates to prevent a re-occurrence.
b) Suspending operations which are not being conducted using best-practice controls.
c) Additional use of the dust abatement measures.
d) Logging findings of a – c in the site diary / complaints form and also in the reporting template within the EP.
e) Report actions to the complainants and/or EA

7.1.5 If following the above complaints are still being received, the site will cease operations until the issues have been rectified.

7.2 Complaints recording

7.2.1 Any complaints received in relation to dust will be recorded on the form shown in Appendix II by the person in receipt of the complaint:

7.2.2 The following details as a minimum will be completed on the form.

a) The name, address and telephone number of the caller will be requested.
b) Each complaint will be given a reference number.
c) The caller will be asked to give details of:

- the nature of the complaint;
- the time;
- how long it lasted;
- how often it occurs;
- is this the first time the problem has been noticed; and,
- what prompted them to complain.

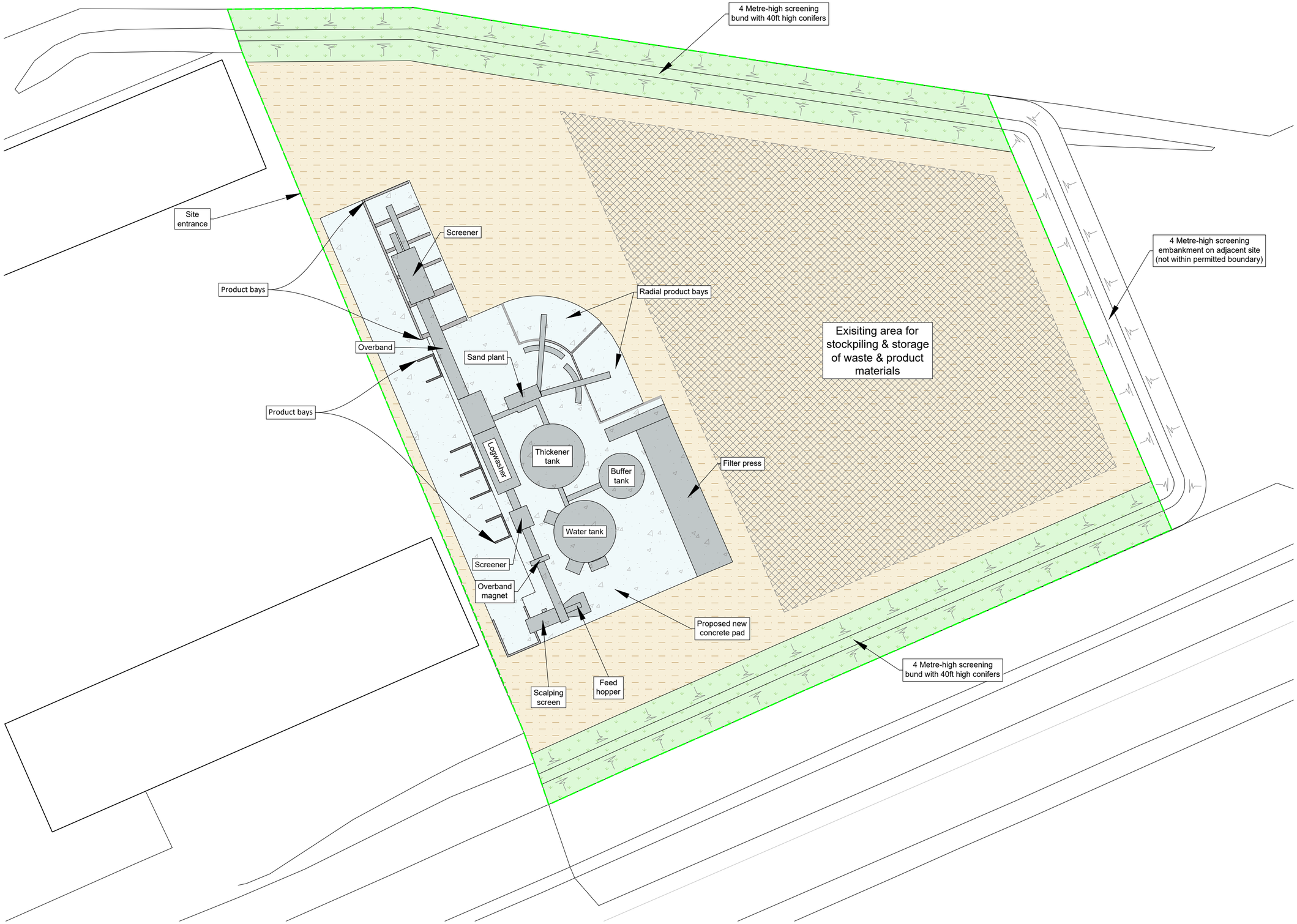
d) The person completing the form will then, if possible, make a note of:

- the weather conditions at the time of the problem (rain snow fog etc.)
- strength and direction of the wind; and,
- the activity on the installation at the time the noise, dust or odour was detected, particularly anything unusual.

e) The reason for the complaint will be investigated and a note of the findings added to the report.
f) The caller will then be contacted with an explanation of the source of the complaint if identified and the action taken to prevent a recurrence of the problem in future.
g) If the caller is unhappy about the outcome or unwilling to identify themselves the caller will be referred to the appropriate department of the EA or Local Council.
h) Following any complaint, the complaints procedure will be reviewed to see if any changes are required or if new procedures need to be put in place.

Appendix I

Drawings



NOTES

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	20.10.22	JH	Initial drawing
A	07.11.22	JH	Client comments

KEY:

- Permit boundary
- Concreted areas (within permit boundary)
- Stone surface (free-draining)
- Unsurfaced/landscaped areas

Scale Bar (1:500)

0 m 5 10 15 20 25 m

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
SITE LAYOUT PLAN

CLIENT
Simonswood Properties Ltd

PROJECT/SITE
Simonswood Industrial Estate, Stopgate Lane, Simonswood, Knowsley, Merseyside, L33 4YB

SCALE @ A2	CLIENT NO	JOB NO
1:500	2358	003

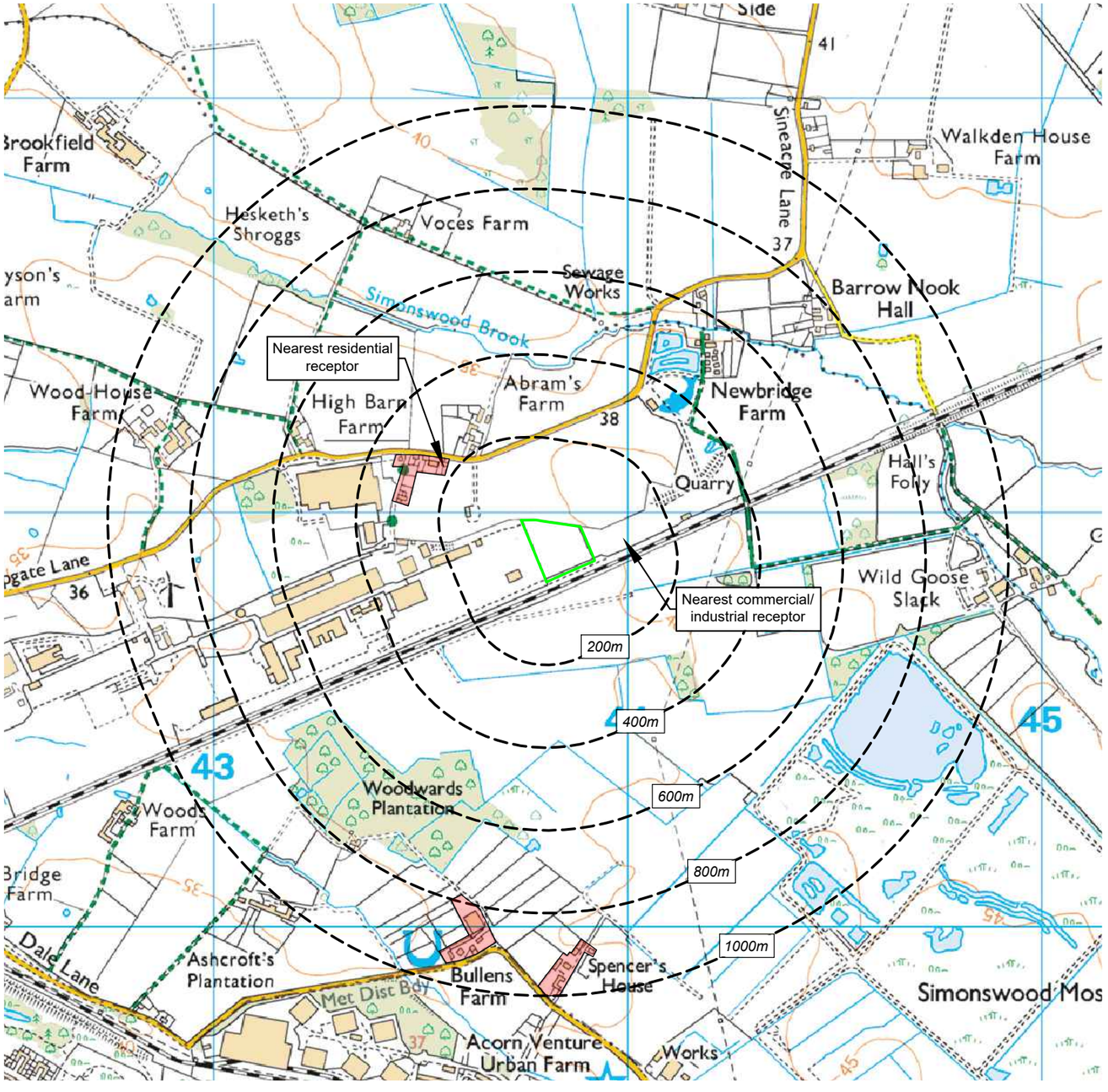
DRAWING NUMBER	REV	STATUS
2358-003-03	A	Issued

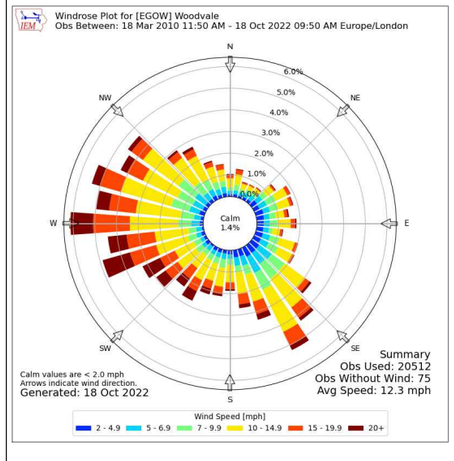
DRAWN BY	CHECKED	DATE
JH	RS	07.11.22

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
t: 01606 558833 | e: sales@oaktree-environmental.co.uk

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Railway line
- Woodland areas





Compass Wind Rose for Woodvale (EGOW)
Period 2010-2022
- source: Iowa State University

Scale Bar (1:12,500)

0 km 500 m 1 km

NOTES

1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be Southerly.

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	23.11.22	IA	Initial drawing

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants

DRAWING TITLE
RECEPTOR PLAN

CLIENT
Simonswood Properties Ltd

PROJECT/SITE
Simonswood Industrial Estate, Stopgate Lane, Simonswood, Knowsley, Merseyside, L33 4YB

SCALE @ A3	CLIENT NO	JOB NO
1:12,500	2358	003

DRAWING NUMBER	REV	STATUS
2358-003-04	-	Issued

DRAWN BY	CHECKED	DATE
IA	IA	23.11.22

Lime House, Road Two, Winsford, Cheshire, CW7 3QZ
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Appendix II

Complaints recording form

Complaints Report Form	
Date Recorded	Reference Number
Name and address of caller	
Telephone number of caller	
Time and Date of call	
Nature of complaint (noise, odour, dust, other) (date, time, duration)	
Weather at the time of complaint (rain, snow, fog, etc.)	
Wind (strength, direction)	
Any other complaints relating to this report	
Any other relevant information	
Potential reasons for complaint	
The operations being carried out on site at the time of the complaint	
Follow Up	
Actions taken	
Date of call back to complainant	
Summary of call back conversation	
Recommendations	
Change in procedures	
Changes to Written Management System	
Date changes implemented	
Form completed by	
Signed	

Appendix III

Dust monitoring form