

ENVIRONMENTAL RISK ASSESSMENT

Unit 25B, Sefton Lane Industrial Estate, Maghull, Liverpool, L31 8BX

Darren Sinners T/A Knowsley Waste Services

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- Appendix I - Risk Assessment Table**
- Appendix II - Site Layout & Fire Plan and Receptor Plan**

1 Introduction

- 1.1 This Environmental Risk Assessment (ERA) considers the potential and actual risks associated with the use of the site at Unit 25B, Sefton Lane Industrial Estate, Maghull, Liverpool, L31 8BX as an Asbestos Waste Transfer Station that is operated by Darren Sinners T/A Knowsley Waste Services.
- 1.2 All site staff should be provided with a copy of this ERA and be aware of where it is located on site.
- 1.3 All environmental risks identified in this document should be acted upon accordingly by site management to ensure all environmental risks can be appropriately managed/controlled.
- 1.4 This document primarily considers environmental risks associated with the site. This does not aim to provide detailed Health and Safety risk assessments as required separately through the necessary legislation.
- 1.5 The Environmental Permit is required for the storage of asbestos
- Compacting (by loading shovel/360° excavator)
 - Sorting (with loading shovel/360° excavator or by hand)
 - Screening (by using appropriate mechanical screening plant and equipment)
 - Separation (by using appropriate mechanical screening plant and equipment)

- 1.6 Specified waste management operations include storage of asbestos was as listed in Annex I and II of The Waste Framework Directive 2008/98/EC and are listed in summary below:

D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)

2 Site Receptors

2.1 A Sensitive Receptors Plan has been provided Appendix II of this document.

3 Environmental Risk Assessment Model

3.1 Fundamental Considerations

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

3.1.2 **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.

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

3.2 Pathway

3.2.1 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 (windblown dust etc.)
- Ground (leaching of contaminants into underlying aquifers).
- Water (hydrocarbon run off into surface waters)
- Direct contact / exposure

3.3 Consequences

3.3.1 The following table highlights the consequences of the hazard(s) identified and the abbreviations for each as used in the Risk Assessment Table in Section 3:

Abbreviation	Consequences
A	Minor Injury
B	Major Injury
C	Death
D	Air Pollution
E	Water Pollution
F	Pollution of Land

3.4 Effects of Consequences

3.4.1 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:

Abbreviation	Consequences	Management Requirements
S	SEVERE	In all cases
Mo	MODERATE	In most cases
Mi	MILD	Occasionally
N	NEGLIGIBLE	No

3.4.2 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.

3.5 Risk Estimation and Evaluation (Probability/Frequency of Occurring Hazard)

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

Abbreviation	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

3.6 Risk Assessment Outcome (Combination of Probability & Consequence)

3.6.1 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.

		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

3.6.2 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.

- 3.6.3 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.
- 3.6.4 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.
- 3.6.5 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.

4 Risk Assessment Table

- 4.1 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.
- 4.2 The table also contains references to the appropriate section(s) of the site's EMS for additional management procedures.
- 4.3 As discussed in Section 3.6 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.

SEE TABLES OVERLEAF

Appendix I

RISK ASSESSMENT TABLES

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome / Residual Risk	Risk Management - Remedial Action/ Recommendations/ Comments to ensure the risk is managed
Asbestos fibres	Exposure due to asbestos arriving to site without being bagged or wrapped Staff negligence leading to damaged asbestos containing waste when handling Asbestos skips not being locked or damaged	Air	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising the Dover's Brook to the south-west of the site Flora & fauna Residential receptors Schools Deciduous woodlands	A - F	S	4	Low	Potential for exposure is low because all asbestos containing materials will be received bagged or securely wrapped and sealed. Wear PPE - gloves and masks as appropriate Site inspections daily Rejected waste procedures (Section 3.4 of EMS) Strict waste acceptance procedures (Sections 3.1 – 3.5 of EMS) Refer to Section 4.1 of EMS in terms of daily inspections Storage of asbestos takes place on an impermeable concrete surface with sealed drainage. No treatment of asbestos takes place at the site, the only operational which take place are the storage and transfer.
Dust / particulates	Formation of dust on site surfaces during dry and windy weather on both areas of the site. Settlement of dust of processing plant on both areas of the site.	Air	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising the Dover's Brook to the south-west of the site Flora & fauna Residential receptors Schools Deciduous woodlands	A,D,E,F	Mo	4	Very Low	The only permitted waste types are asbestos (see above) so the only source of dust is ancillary activities such as vehicle movements. The potential for exposure is low for anyone living or working close to the site (apart from the operator and employees). Due to the tonnages involved, vehicle movements are considered very low for this type of facility. All waste accepted at the site is either wrapped or bagged and then stored in a sealed, locked skip so there is no risk of dust arising from any accepted or stored wastes at the site. Refer to Section 4.2 of EMS in terms of daily inspections Rejected waste procedures (Section 3.9 of EMS) Strict waste acceptance procedures (Sections 3.1 – 3.5 of EMS)

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome / Residual Risk	Risk Management - Remedial Action/ Recommendations/ Comments to ensure the risk is managed
Odour	Cracks in concrete leading to trapped residues in areas of the site Staff negligence leading to odour releases from unauthorised waste acceptance and treatment	Air	Site personnel/ visitors Surrounding site users/occupiers Residential receptors Schools	A, D	Mi to Mo	4	Very Low	The only permitted waste types are asbestos which is not considered to be an odourous waste. Refer to Section 4.1 of EMS in terms of daily inspections Rejected waste procedures (Section 3.4 of EMS) Strict waste acceptance procedures (Sections 3.1 – 3.5 of EMS)
Litter	Litter escaping from storage asbestos bags, wrapping Overflowing trade waste bins Staff negligence leading to litter escaping off site	AIR	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising the Dover's Brook to the south-west of the site Flora & fauna Residential receptors Deciduous woodlands	A to C E,F	Mi to M	4	Low	The only permitted waste types are asbestos which will not cause litter issues at the site Refer to Section 4.1 of EMS in terms of daily inspections Strict waste acceptance procedures (Sections 3.1 – 3.5 of EMS)

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome / Residual Risk	Risk Management - Remedial Action/ Recommendations/ Comments to ensure the risk is managed
Noise/ vibration	Delivery vehicles Collation and deposit of asbestos skip	Air or ground by vibration	Site personnel/ visitors Surrounding site users/occupiers Workers on adjacent sites Residential receptors Schools	A, D	Mo	3	Low	<p>Noise likely to be of a similar character and level of existing surrounding land uses i.e. industrial and commercial businesses as the only activities involve the transfer of asbestos.</p> <p>Nearest sensitive receptor i.e. residential property located >80m to the north-east of the site on NCN 62 and there is tall vegetation in between.</p> <p>Management will ensure that all loading plant operated is functioning suitably i.e. moving parts to be regularly lubricated.</p> <p>Operatives will be informed to turn off engines when the plant is not in use and no revving of engines will be permitted at the site i.e. no idling policy</p> <p>Any malfunctions in plant i.e. missing screws/bolts which result in excessive noise will be decommissioned until an alternative loading plant sourced.</p> <p>Complaint's procedure in place.</p> <p>If repairs to the site are required, the work is to be undertaken with due regard for the possible noise nuisance and during the normal working day.</p> <p>No mechanical treatment of waste takes place at the site.</p> <p>No hot works or cutting will take place at the site.</p>

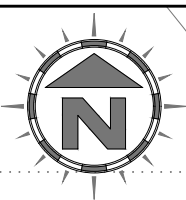
Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome / Residual Risk	Risk Management - Remedial Action/ Recommendations/ Comments to ensure the risk is managed
Vermin causing leptospirosis and other respiratory diseases	Poor housekeeping Staff negligence leading to acceptance of unauthorised waste giving rise to pests Storing trade waste bins for excessive time periods	Water, direct contact with waste	Site personnel/ visitors Surrounding site users/occupiers Workers on adjacent sites Residential receptors Schools	A TO C	MI TO MO	3	LOW	Wear PPE - gloves and masks as appropriate Site inspections daily Rejected waste procedures (Section 3.4 of EMS) Strict waste acceptance procedures (Sections 3.1 – 3.5 of EMS) Refer to Section 4.1 of EMS in terms of daily inspections Pest controller called in the event of pests being present at the site or complaints received from receptors
Fire/ smoke / particulates	Arson or vandalism Faulty plant or equipment Electrical appliances and cabling Discarded smoking materials Plant/machinery and exhausts Other combustible non-waste materials on or near the site not mentioned above Visitors or contractors Leaks and spillages	Air, direct contact	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising the Dover's Brook to the south-west of the site Flora & fauna Residential receptors Schools Deciduous woodlands	A TO F	MI TO S	3	LOW	No fires on site No smoking permitted on site Good site security The only permitted waste types are bagged or wrapped asbestos containing waste which are stored within a locked skip. There are no sludges or liquids and little combustible material Preventative maintenance procedures for fixed and mobile plant

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome / Residual Risk	Risk Management - Remedial Action/ Recommendations/ Comments to ensure the risk is managed
Vehicle collision/ accidents including impacts and injury	Poor visibility Spillages of oils/fluids causing vehicles to skid Lack of PPE worn by staff Staff negligence i.e. mobile plant operators	Direct contact	Site personnel / visitors Vehicle users Pedestrians					<p>Good housekeeping (Refer to Section 4.1 of EMS) in terms of daily inspections.</p> <p>No fuel stored at the site.</p> <p>No mobile plant used at the site.</p> <p>Gas bottles stored in caged area away from any combustible or flammable materials.</p> <p>An accident logbook is kept in the site office so all new and existing staff members can review previous accidents.</p> <p>Encouragement for staff for greater number of “accident-free days” to encourage a safer working environment</p> <p>HSE compliant risk assessments and ISO 14001 EMS systems for all site activities to identify situations which may lead to harm for site users (employees, visitors and management)</p> <p>Appropriate signage throughout the site.</p> <p>All staff have radio’s and use horns / alarms on equipment to alert them of their presence</p> <p>The operator has trained staff who control vehicle movements throughout the site.</p> <p>Vehicle movements on site restricted to 5mph.</p> <p>Dedicated staff & visitor parking areas on site.</p> <p>Staff training procedures shown in Section 6 of the EMS.</p>

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome / Residual Risk	Risk Management - Remedial Action/ Recommendations/ Comments to ensure the risk is managed
Leachate	Poor housekeeping Staff negligence leading to acceptance of unauthorised waste giving rise to leachate Overflowing trade waste bins Defects to the concrete surfaces storing waste	Ground	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising the Dover's Brook to the south-west of the site Flora & fauna Residential receptors Schools Deciduous woodlands					Waste storage/treatment is undertaken on an impermeable concrete surface with sealed drainage and refer to Section 4.1 of the EMS in terms of daily inspections. Regular (minimum daily) checks of site surface infrastructure (as above). Any spillages identified will be dealt with in accordance with the spillage procedures outlined in section 5.3 of the EMS. Any wastes which are liable to give rise to contamination will be removed from site or placed into the quarantine skip/area.
Hydrocarbons including release of gases/fumes/ vapours/ volatiles	Spills from fuel tanks Drips when refueling Fixed and mobile plant malfunction Mixing of waste/ chemicals Spillage of chemicals Overturned vehicle plant/plant failure Reaction between stored wastes	Ground - direct contact, ingestion Inhalation (of volatiles)	Site personnel/ visitors Surrounding site users/occupiers Surface water comprising the Dover's Brook to the south-west of the site Flora & fauna Residential receptors Deciduous woodlands					No fuel stored at the site. No mobile plant used at the site. Spill kits kept close to source(s) of hazards as shown on Drawing No. SEF/2138/03. Any spillages identified will be dealt with in accordance with the spillage procedures outlined in section 5.3 of the EMS. Gas bottles stored in caged area away from any combustible or flammable materials.

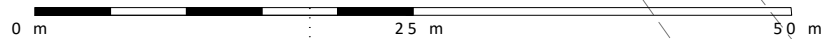
Appendix II

SITE LAYOUT PLAN AND RECEPTOR PLAN



To Sefton Lane

Scale Bar (1:500)



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Drawing No: SEF/2128/03 Rev: C

Title: SITE LAYOUT PLAN

Site: Unit 25 B, Sefton Lane Industrial Estate, Maghull L31 8BX

Client: Darren Sinners T/A Knowsley Waste Services

Date: 13 January 2022 Job: 002

Drawn: CP Checked: KWS Client: 2128

Scale: 1:500 Printed @: A4

KEY:

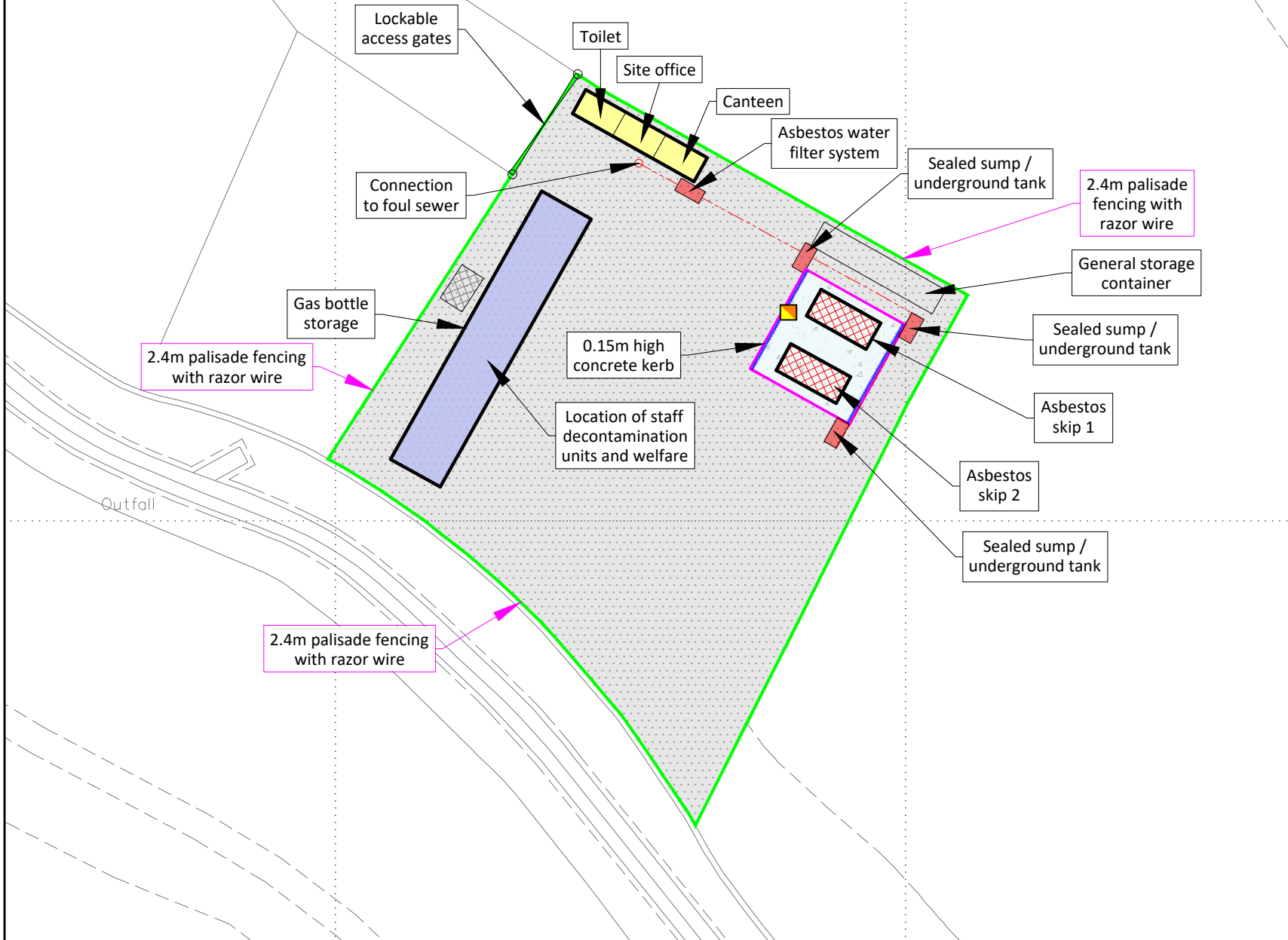
- Permit boundary
- Spill kit
- Sealed concrete pad
- Hardstanding area
- Buildings/offices
- - - Underground drainage

Notes:

- (1) Drawing for indication only.
- (2) Do not scale from this drawing.
- (3) All measurements must be verified on site.

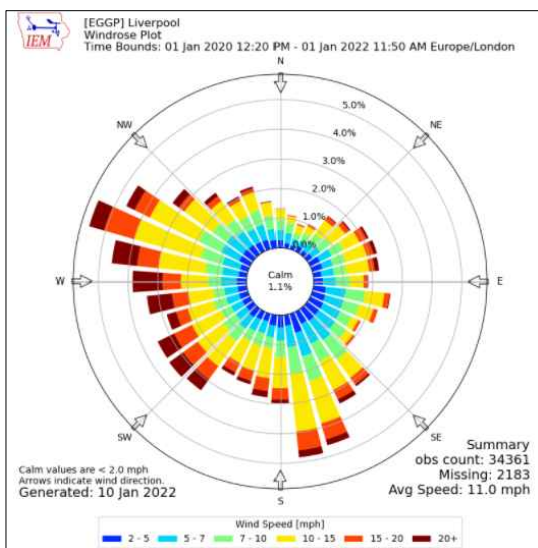
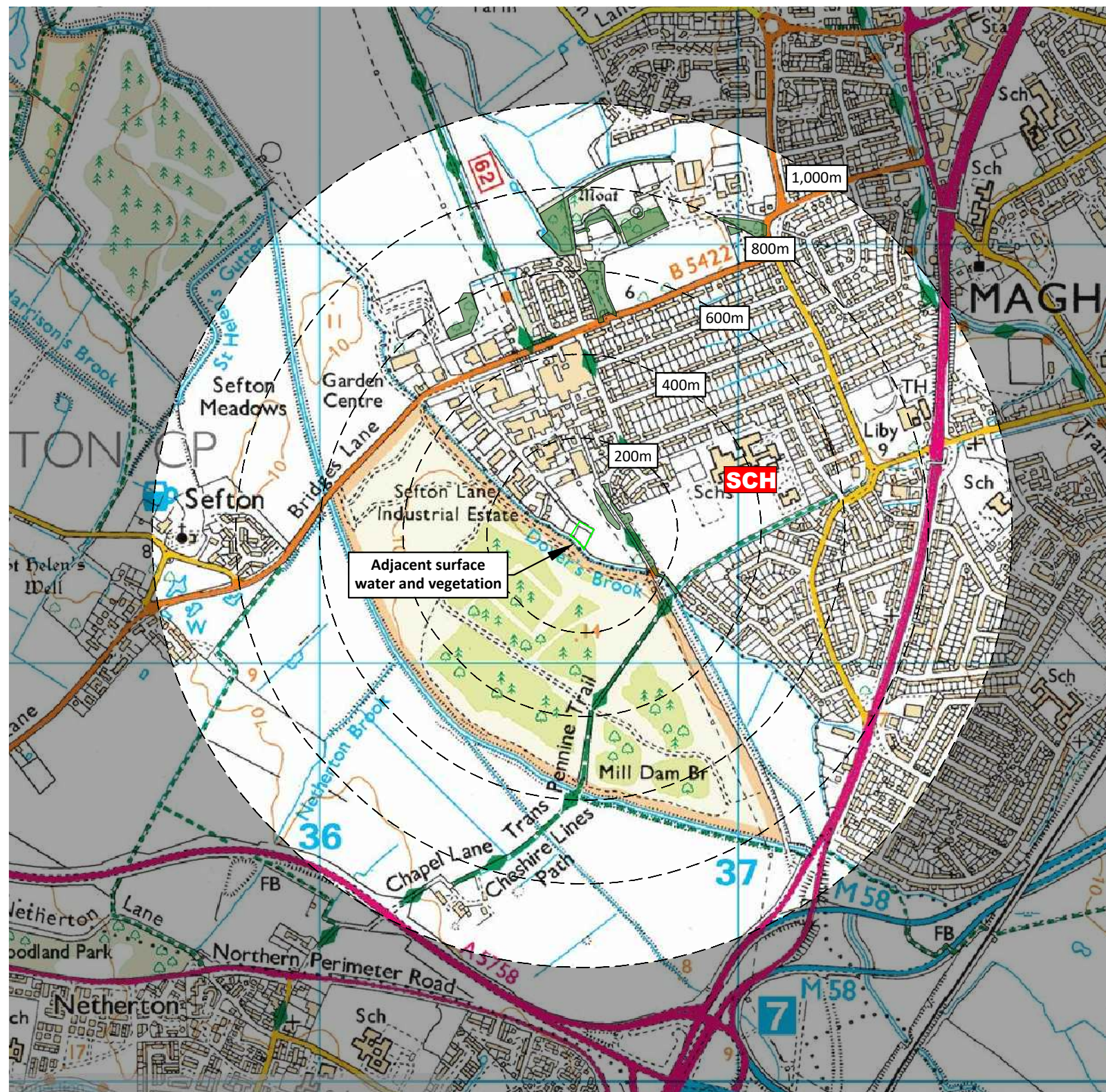
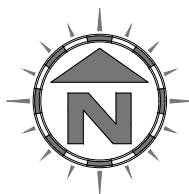
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Rev:	Date:	Init:	Description:
-	19/08/16	CP	Initial drawing
A	14/12/16	CP	Amended layout
B	05/05/17	CP	Client comments
C	13/01/22	CP	Variation copy

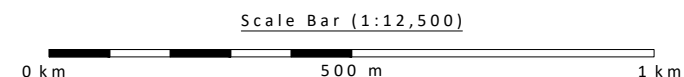


KEY:

- Permit boundary
- Stream, river, beck
- Surface water body (pond / pool / lake)
- Buildings includes residential, agriculture, industry, commerce and retail - could also include houses)
- Residential blocks / properties
- Class A roads
- Class B roads
- Class C roads
- Railway line
- SCH School
- Woodland areas
- Deciduous woodland
- Public footpaths



Compass Wind Rose for Liverpool (EGGP)
Period 2020-2022
- source: Iowa State University



NOTES

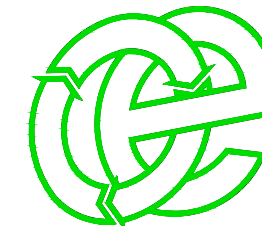
1. Boundaries are shown indicatively.
2. Wind rose data shows the prevailing wind direction to be blowing westerly from the east.

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REVISION HISTORY

Rev:	Date:	Init:	Description:
-	13.01.22	CP	Initial drawing

Oaktree Environmental Ltd
Waste, Planning and Environmental Consultants



DRAWING TITLE
RECEPTOR PLAN

CLIENT
Darren Sinners T/A Knowsley Waste Services

PROJECT/SITE
Unit 25 B, Sefton Lane Industrial Estate, Maghull L31 8BX

SCALE @ A3 1:12,500	CLIENT NO 2128	JOB NO 002
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DRAWING NUMBER SEF/2128/04	REV -	STATUS Issued
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DRAWN BY CP	CHECKED --	DATE 13.01.22
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