ENVIRONMENTAL RISK ASSESSMENT

Farm Whalley Hall Lane, Little Warley Hall Lane, West Horndon, Upminster, CM13 3EN

Martin Chinnery T/A A and C Tyres Collection Services

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Waste, Planning & Environmental Consultants

Document History:

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1.0	05/01/2026	JU	CP	Application Copy

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1 Introduction

1.1 General

1.1.1 Oaktree Environmental Ltd have been instructed by Martin Chinnery T/A A and C Tyres Collection Services (the operator) to prepare this Environmental Risk Assessment (ERA) to support a new bespoke environmental permit (EP) application at Farm Whalley Hall Lane, Little Warley Hall Lane, West Horndon, Upminster, CM13 3EN.

1.1.2 The site will be operated in accordance with a fully comprehensive Environmental Management System (EMS) and Environmental Permit, regulated by the Environment Agency.

1.1.3 All site staff should be provided with a copy of this ERA and be aware of where it is located on site.

1.1.4 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.

1.1.5 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.

1.1.6 Specified waste management operations include waste disposal and waste recovery operations listed Annex IIA and IIB of The Waste Framework Directive 2008/98/EC and are listed in summary below:

- R3: Recycling/reclamation of organic substances which are not used a solvents
- R4: Recycling/reclamation of metals and metal compounds
- R13: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced).

1.1.7 The EP is required for the storage prior to removal and treatment of waste. Waste treatment processes on site may include the following:

- Compacting (by baler)
- Cutting (by hand tools)
- Sorting (with loading shovel/forklift or by hand)
- Separation (with loading shovel/forklift or by hand)
- Baling (by baler)

2 Site Location and Receptors

2.1 Site Location

2.1 The site is located at Farm Whalley Hall Lane, Little Warley Hall Lane, West Horndon, Upminster, CM13 3EN, National Grid Reference TQ 60634 88481 and is accessed via Little Warley Hall Lane.

2.1.2 The Land use surrounding the site is predominantly commercial and industrial premises located south of the A127. The nearest residential receptors are located to the north on Little Warley Hall Lane approximately 30m away.

2.1.3 A full list of receptors within 1km of the site can be found in Table 2.1 overleaf. Some receptors included in this list may not be sensitive to all potential emissions / hazardous from the site i.e. surface water is not considered sensitive to odour. When considering each hazard in the risk assessment table specific receptors that could have the potential to be affected have been outlined.

2.2 Sensitive Receptors

2.2.1 Sensitive receptors within 1km of the site are illustrated on the Receptor Plan in Appendix II.

2.2.2 Table 2.1 overleaf shows the approximate distance and orientation of sensitive receptors from the site.

Table 2.1 - Sensitive Receptors

Receptor	Direction from Site	Approx distance from the site boundary to the receptor boundary (m)
Commercial / Industrial		
Elite MOT	East	0
TPH Machine Tools	South	0
Virgin Active	North	90
Esso	North	265
Storage and Distribution Hub	South	145
JL Motors Services	South	395
E2 Joinery	South	428
Lock and Stock Storage	South	380
7 Days Services	South	426
Cheale Meats	South	453
Residential Dwellings		
Little Warley Hall Lane	North	28
Watercourses / Surface Water Features		
Unnamed Waterbody	South	535
Unnamed Waterbody	North	908
Infrastructure (major roads and transport links)		
A127 Southend Arterial Road	North	262
Little Warley Hall Lane	West	56
Upminster Railway Line	South	645
Ecological Sites		
Priority Habitat Inventory-Deciduous Woodland	North	424
Ancient Replanted Woodland	North	424

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

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 occurrence of hazard)

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

Score	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	Negligible
	3	Medium	Low	Negligible	N/A
	4	Low	Negligible	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 negligible, 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 Table

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Dust / particulates	Site surfaces (dry and windy weather) Waste delivery vehicles (dry and windy weather)	Air	Local human population, including users of surrounding commercial / industrial sites, other neighbouring businesses, residential dwellings, surface water features, flora and fauna, specifically: Site workers and visitors Adjacent businesses, A127 road network, residential dwellings on Little Warley Hall Lane	Harm to human health – respiratory irritation and illness A, B, D, E,	Mi – Mo	3	Negligible	Due to the waste types handled and processed on site, it is not envisaged that dust will be problematic for adjacent businesses. However, the operator is aware that the containment of dust on site and the prevention of its escape is paramount to operational compatibility with these residents and businesses. The treatment of tyres is carried out in the external yard which benefits from manual suppression comprising hoses to damp down equipment and processing areas. Vehicle speed on site is restricted to 5 miles per hour. Signs are erected to advise drivers of the speed limit. Vehicle drivers will be instructed to ensure they use main access routes on site and avoid areas which harbour excessive mud/dust build-up. A continuous supply of water will be available for dust suppression from the onsite hoses shown on the site layout plan in all dry/hot weather conditions. Water pipes will be lagged to prevent frost damage during winter months. The site manager or designated operative will carry out regular visual inspection for dust emissions and record any findings and action taken in the site diary and/or on inspection form. All deliveries of loose waste are via vans and small vehicles where the waste will be manually removed from the vehicle and not tipped from height. Complaint’s procedure in place.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Odour	Blocked/un-managed drains. Overflowing trade waste bin where staff dispose of rubbish	Air transport then inhalation	Local human population, including users of surrounding commercial / industrial sites, other neighbouring businesses, residential dwellings, surface water features, flora and fauna, specifically: Site workers and visitors Adjacent businesses, A127 road network, residential dwellings on Little Warley Hall Lane	A, D	Mi to Mo	3	Negligible	Strict waste acceptance procedures to identify potentially odorous wastes and reject them. The site does not receive any waste types which would be regarded as having significant odour potential given the site will only be accepting tyres i.e. EWC codes 16 01 03. If unauthorised waste is found on site it will be placed into a sealed skip and removed from site within 48 hours or sooner if applicable. Regular contract with a suitably permitted site who collect the trade waste bin weekly. This bin is also monitored daily and emptied sooner if it is reaching capacity. Complaint's procedure in in place. Continuous daily inspections to ensure any material found on site with odour potential is quarantined
Waste, litter and mud on local roads	Litter escaping the site boundary (windblown). Vehicles delivering / removing waste and waste during dry and windy weather conditions. Poor housekeeping Staff negligence leading to litter escaping off site.	Air transport (windblown)	Local human population, including users of surrounding commercial / industrial sites, other neighbouring businesses, residential dwellings, surface water features, flora and fauna, specifically: Site workers and visitors Adjacent businesses, A127 road network, residential dwellings on Little Warley Hall Lane	A to C, E, F	Mi to Mo	4	Negligible	Continuous daily inspections of the site and areas in the immediate vicinity of the site boundary for litter. All loose waste will be deposited and stored inside the building External storage comprises compacted/baled wastes which will not generate litter. Vehicles leaving the site will be sheeted and will be cleaned via a hose when departing the site to prevent mud being tracked onto the local highway. In the event of mud being tracked off site and onto the main roads it will be treated as an emergency and cleaned by site operatives using manual techniques or if required the operator will organise for a road sweeper to be deployed.
Noise/ vibration	HGVs travelling to and from the site for delivery/collection of wastes/products. Loading/unloading of waste delivery vehicles Operation of mechanical	Noise through the air or vibration through the ground	Local human population, including users of surrounding commercial / industrial sites, other neighbouring businesses, residential dwellings, surface water features, flora and fauna, specifically: Site workers and visitors	A, D	Mo	3	Negligible	All operations take place during daytime hours where noise levels are consistent with those taking place on the surrounding site. The only treatment comprises tyres being baled which will not cause any banging, crashing which would cause intermittent noise/vibration. Other noise sources would be loading containers with tyres using forklifts and use of HGVs at the site for importing/exporting tyres. The noise levels associated with this would be common with other uses on the industrial estate i.e. light industry and storage/distribution.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
	treatment plant (baler) Small vehicles travelling to and from the site (e.g. staff and visitor's cars, courier van deliveries etc.)		Adjacent businesses, A127 road network, residential dwellings on Little Warley Hall Lane					All vehicles are required to be driven onto and off site with due consideration for neighbouring premises. HGV movements will be spread out evenly throughout the day. Vehicles must be well maintained and operated with silencers. Moving parts to be regularly lubricated. All vehicles must be driven slowly around the site (5mph site speed limit). Engines to be switched off when not in use. Reversing alarms to be preferentially fitted with white noise alarms to minimise impacts on neighbouring sites. No shaking of vehicle bodies whilst raised. Engines to be switched off when not in use (no idling policy) Plant to be well maintained and operated with silencers. Moving parts to be regularly lubricated. If mechanical treatment plant is causing a noise nuisance due to a malfunction, the plant will be shut down until the problem is rectified. All those working on and visiting the site to be made aware of need for considerate driving and keeping vehicles well maintained. Small vehicles will arrive marginally earlier than the main site operating hours. All operations undertaken on the site will be in accordance with a noise impact assessment and noise management plan which these documents will be submitted as apart of this bespoke permit application. The noise impact assessment concluded that the tyre cutting operations are those which contribute to the resultant impact the most. Therefore, the hand cutting and the plant cutting of tyres has been moved towards the eastern boundary and will be situated behind a 2.4m high acoustic screen. This ensures the resultant impact at the nearest sensitive receptors is a low impact. The site as a measure to reduce the impact from the cutting operations further are open to using electric disc cutters for the hand held cutting operations, however given the resultant impact is presented as low this

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
								measure will only be utilised if the operator wishes to relocate the cutting operations. Complaint's procedure in place.
Vermin causing leptospirosis and other respiratory diseases	Stored Wastes	Water, direct contact with waste	As above	A to C	Mi to Mo	4	Negligible	Wear PPE - gloves and masks as appropriate. Site inspections daily. Any wastes considered unsuitable after deposit will be assigned to the quarantine skip / area. The site does not receive any waste types which would be regarded as putrescible/ biodegradable.
Fire, smoke, particulates	See Section 2.1 of FPP	Air transport of smoke, direct contact of flames	See Table 2.1 above.	A to F	Mi to S	3	Medium	See FPP document (3594-LWHF-FPP)
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 users and visitors	A to F	Mi to S	3	Low	All maintenance/housekeeping are listed on daily record/inspection forms. The inspection form will be completed by a person who is familiar with the requirements of the EMS and EP for the site. All details of defects, problems and repairs carried out will be recorded on the form on the day that each event occurs. Detailed comments may also be recorded in a site diary. All repairs will be carried out as soon as practically possible. The site will not operate in conditions of poor visibility such as dense fog. Site surfaces are flat and also benefit from a large access into the site. All staff have radios and use horns / alarms on equipment to alert them of their presence. The operator has trained staff who control vehicle movements throughout the site. An accident logbook is kept in the site office so all new and existing staff members can review previous accidents.

Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
								Encouragement for staff for greater number of "accident-free days" to encourage a safer working environment. Appropriate signage throughout the site and vehicle movements on site restricted to 5mph.
Leachate	Release of contaminated water into surface waters or off site Overflowing/damaged trade waste bin contaminating surface water.	Ground	See dust receptors	E, F	Mi to S	3	Low	The site does not receive waste types which are liable to give rise to contamination. Regular (minimum daily) checks of site surface infrastructure. In the event of a spillage a spill containment kit (absorbent pads, booms or granules) will be used to prevent further spillage and the contaminated absorbents placed in a skip for disposal to a suitably permitted facility. FPP in place which details suitable fire water containment measures. Regular contract with a suitably permitted site who collect the trade waste bin weekly. This bin is also monitored daily and emptied sooner if it is reaching capacity.
Hydrocarbons including release of gases/fumes/ vapours/ volatiles	Integrity of fuel tanks Drips when refuelling 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)	See table 2.1 above	A, B, D, E, F	Mi to S	3	Low	The only fuel stored on site will be the 2000-litre fuel tank, which will be double bunded to prevent any spillages. All waste accepted undergoes strict acceptance procedures to ensure any contaminated waste is returned to the producer's vehicle or safely quarantined on site. Spill kits kept close to source(s) of hazards. Preventative maintenance schedule for plant/machinery. Any spillages identified will be dealt with in accordance with the spillage procedures outlined in the EMS. Ensure and storage of hazardous substances in properly designated areas (i.e. workshop/ store or in the site office) Preventative maintenance schedule for plant/machinery. Quarantine or rejected (i.e. potentially hazardous) wastes.

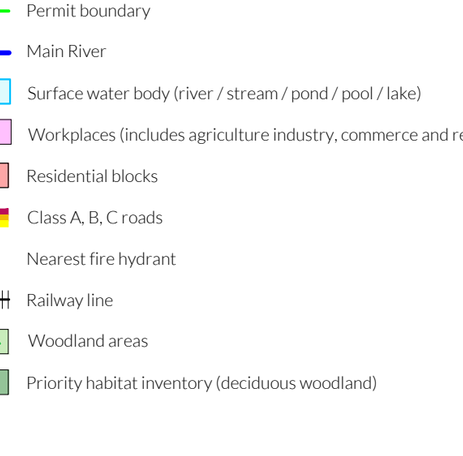
Hazard / Potential Contaminant or Situation	Source(s)	Pathway	Receptor(s)	Consequences	Effect	Probability	Assessment Outcome	Remedial Action/ Recommendations/ Comments
Impact/ injury	Collapse of stored materials / falling materials	Direct contact	Site personnel / visitors	A to C	Mi to S	3	Low	Storage heights will be kept to a minimum Drop heights will always be kept to a minimum Appropriate PPE issued to all site staff and available in the main site office Staff training and handling procedures

Appendix II

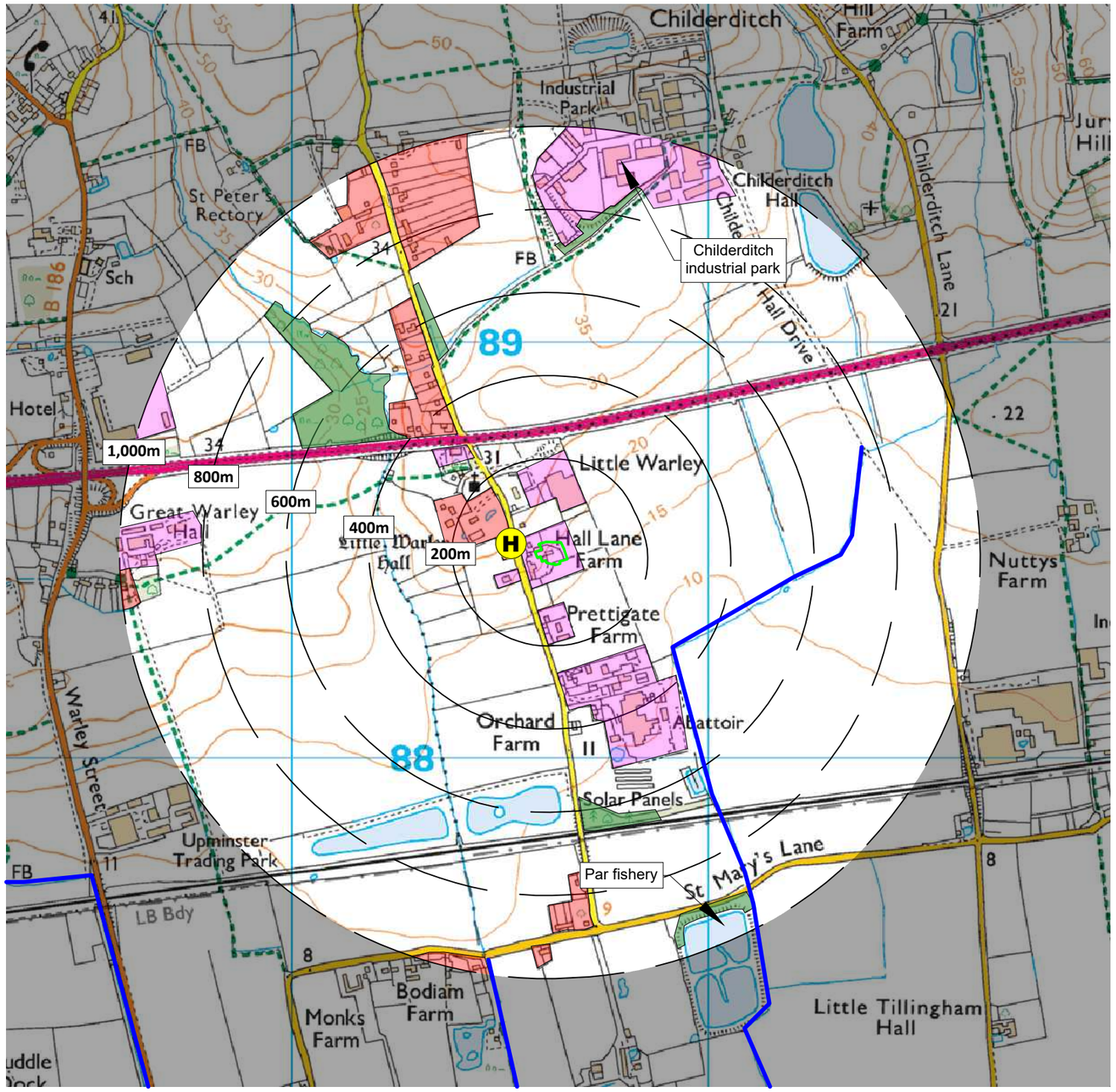
Drawings

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Residential blocks
- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- Woodland areas
- Priority habitat inventory (deciduous woodland)



Compass Wind Rose for (EGSS) London
Period 1973-2025
- source: Iowa State University



NOTES

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

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	02.10.25	JH	Initial drawing

N

Scale Bar (1:12,500)
0 100 200 300 400 500m

TITLE:
RECEPTOR PLAN

CLIENT:
A & C Tyres Collection Services Ltd

PROJECT/SITE:
Little Warley Hall Lane, West Horndon, Upminster CM13 3EN

SCALE @ A3:	CLIENT NO:	JOB NO:
1:12,500	3594	001

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02.10.25	JH	CP

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