Environmental Risk Assessment

Prepared on Behalf of:

Prepared on Behalf of:
Keeble Container Services Ltd

Site Name:

Paynes Lane

Nazeing

Waltham Abbey

EN9 2EX

Environmental Permit Application Reference:

EPR/LB3804LQ/A001

DOCUMENT CONTROL SHEET

Site:	**Paynes Lane**
Project:	**Bespoke Permit Application**
Title	**Environmental Risk Assessment**
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Author	***Shane Ronald Tasker AssocMCIWM PIEMA EA (IEMA Qualified Auditor) Tech IOSH***

Distribution List:

Environment Agency

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1. Introduction

1.1.1 This Environmental Risk Assessment (RA) has been produced on behalf of Keble Container Services Ltd (the applicant), in line with current Environment Agency guidance, 'Risk Assessment for your Environmental Permit' available on Gov.uk, to support an application for a new bespoke environmental permit for a Waste operation under the Environmental Permitting (England and Wales) Regulations 2016 (as amended).

1.2 Environmental Risk Assessment Aims

1.2.1 This assessment aims to consider potential environmental hazards associated with the activity and to identify sensitive receptors, which may impact and determine the influence management practice has on reducing risk.

2. Site Setting

2.1 Location

2.1.1 The operation is located off Paynes Lane, which is an area benefitting from numerous Commercial & industrial activities as well as an existing recycling operation adjacent to the site, which would not be deemed sensitive in nature. The operation is within 90 metres of the Lea Valley Central Local Wildlife Site (LWS), which is to the north-west of the site, as well as being within 394 metres of a European Eel Migratory Route (Protected Species), which is to the northwest-west of the site. The nearest residential receptor is over 325 metres away, which is located at the bottom of Paynes Lane.

2.2 Designated Environmentally Sensitive Sites

2.2.1 There are no European Designated Sites such as Ramsar, Protection Areas, Biosphere Reserve, Special Areas of Conservations within 1000 metres of the site. However, the site is within 90 metres of the Lea Valley Central Local Wildlife Site (LWS), which is to the north-west of the site, as well as being within 394 metres of a European Eel Migratory Route (Protected Species), which is to the northwest-west of the site as evidenced in Figures 1/2. Furthermore, the site is not within an AQMA area for the management of PM10 Pollutants, but for NOx Pollutants, as evidenced in Figure 3.

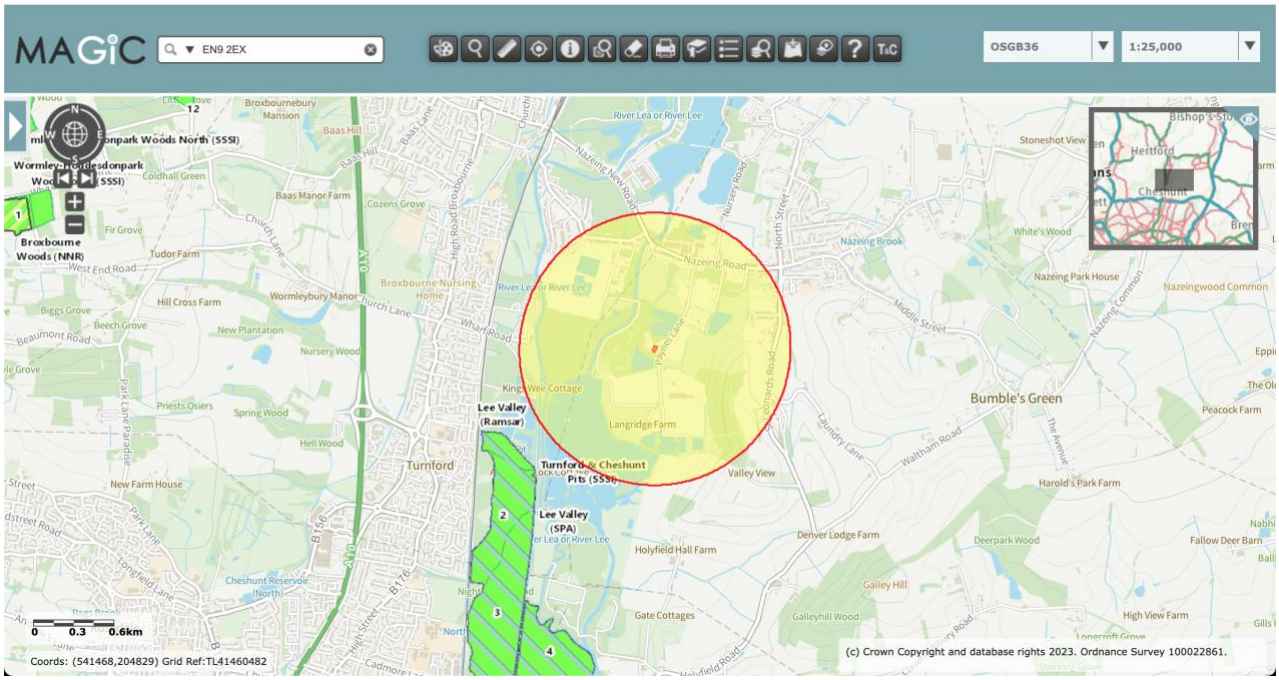
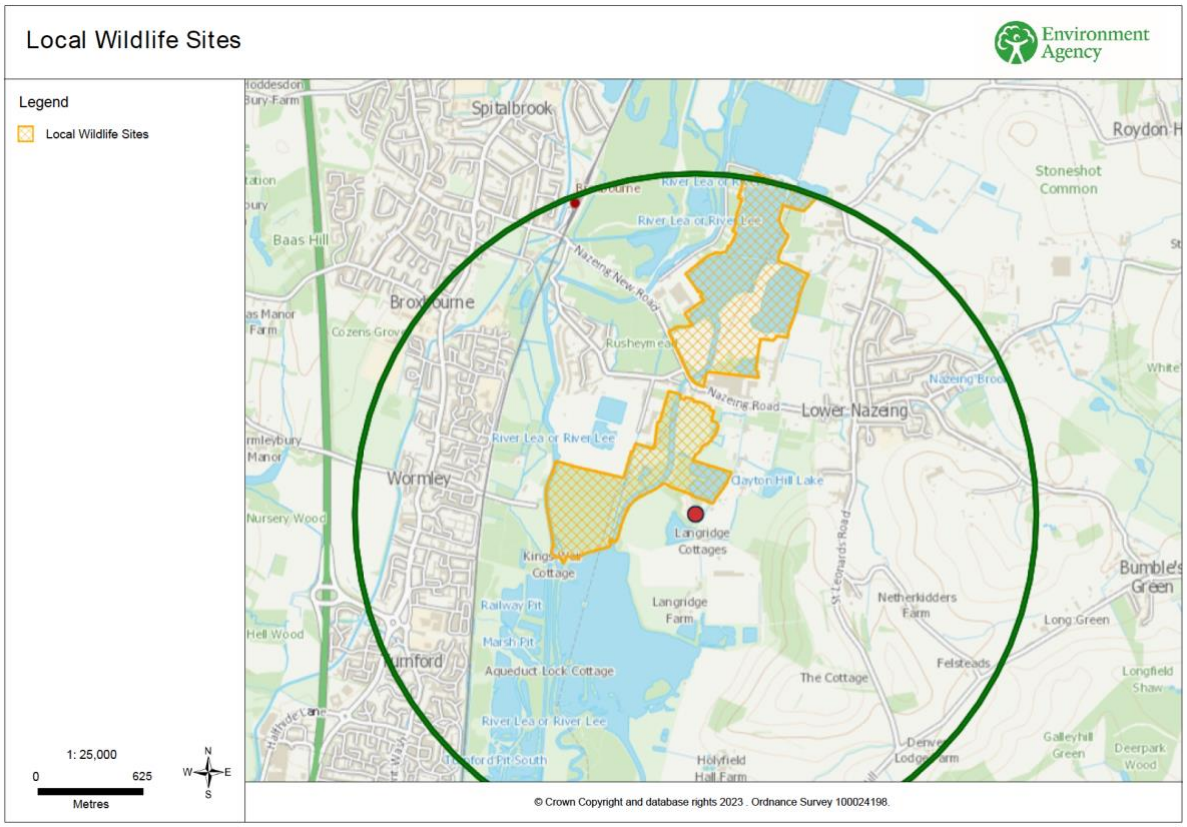
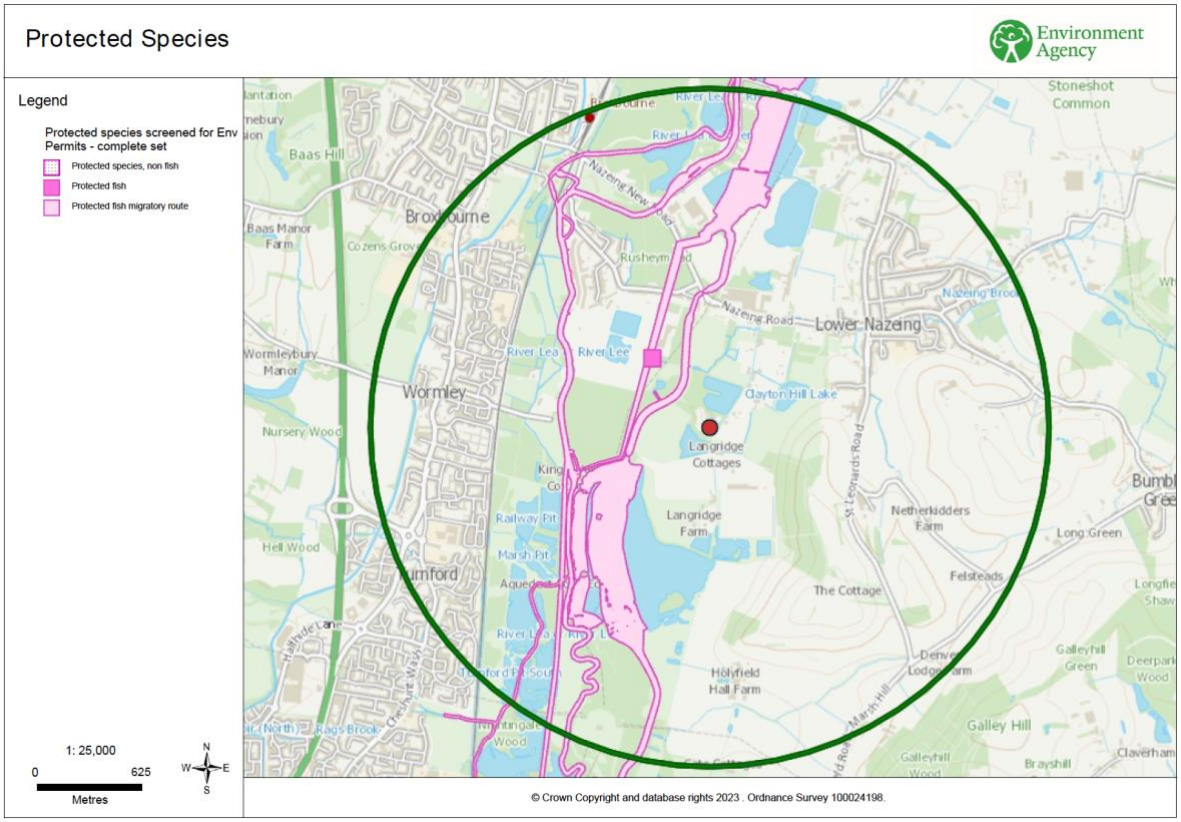


Figure 1: Map Showing Proposed Application Site & 1000 Metre Screening Buffer (Magic Interactive Tool)





<u>Figure 2:</u> Showing Proposed Application Site in Relation to Identified Receptors (EA Screening)

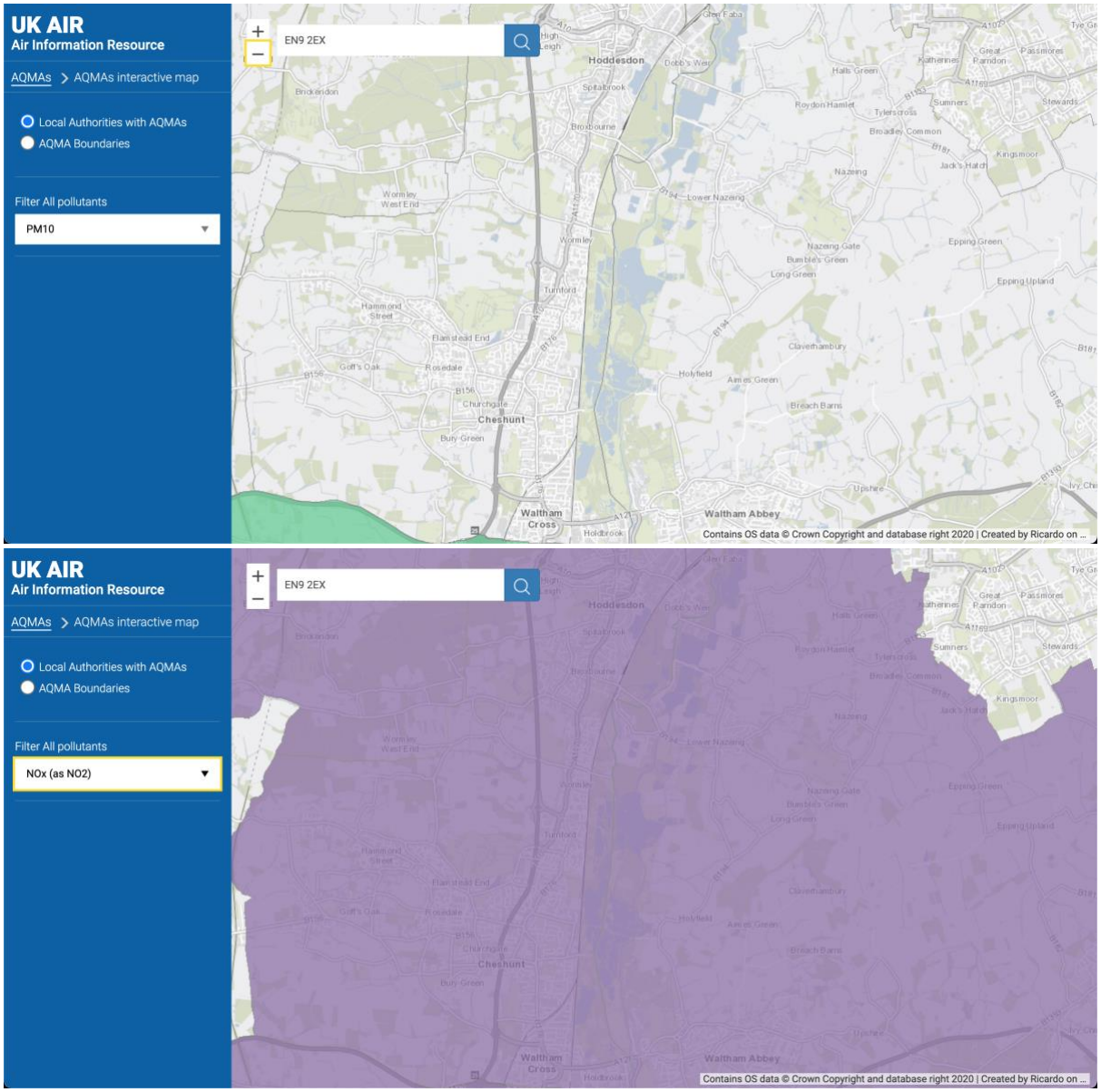


Figure 3: Application Site in Relation to Air Quality Management

2.3 Hydrogeology Aquifer Designation Map (Bedrock)

2.3.1 Information obtained from the BGS confirms that the bedrock is a Lambeth Group clay, slit sand.

2.4 Hydrogeology Aquifer Designation Map (Superficial)

2.4.1 The site falls within a Secondary A Designation for Superficial Drift. Information obtained from the BGS confirms that the superficial geology is Alluvium (clay/sand/silt/gravel).

2.5 Groundwater Source Protection Zones

2.5.1 The site falls within a Groundwater Source Protection Zone III Total Catchment Designation.

2.5.2 The proposed application site is within a Drinking Water Protected Area (surface water or groundwater).

2.6 Flood Risk

2.6.1 The proposed application site is within a Flood Zone 3 Designation.

3. Methodology

3.1 Hazard Identification

3.1.1 A hazard is something with potential to cause harm to something else.

3.2 Receptors

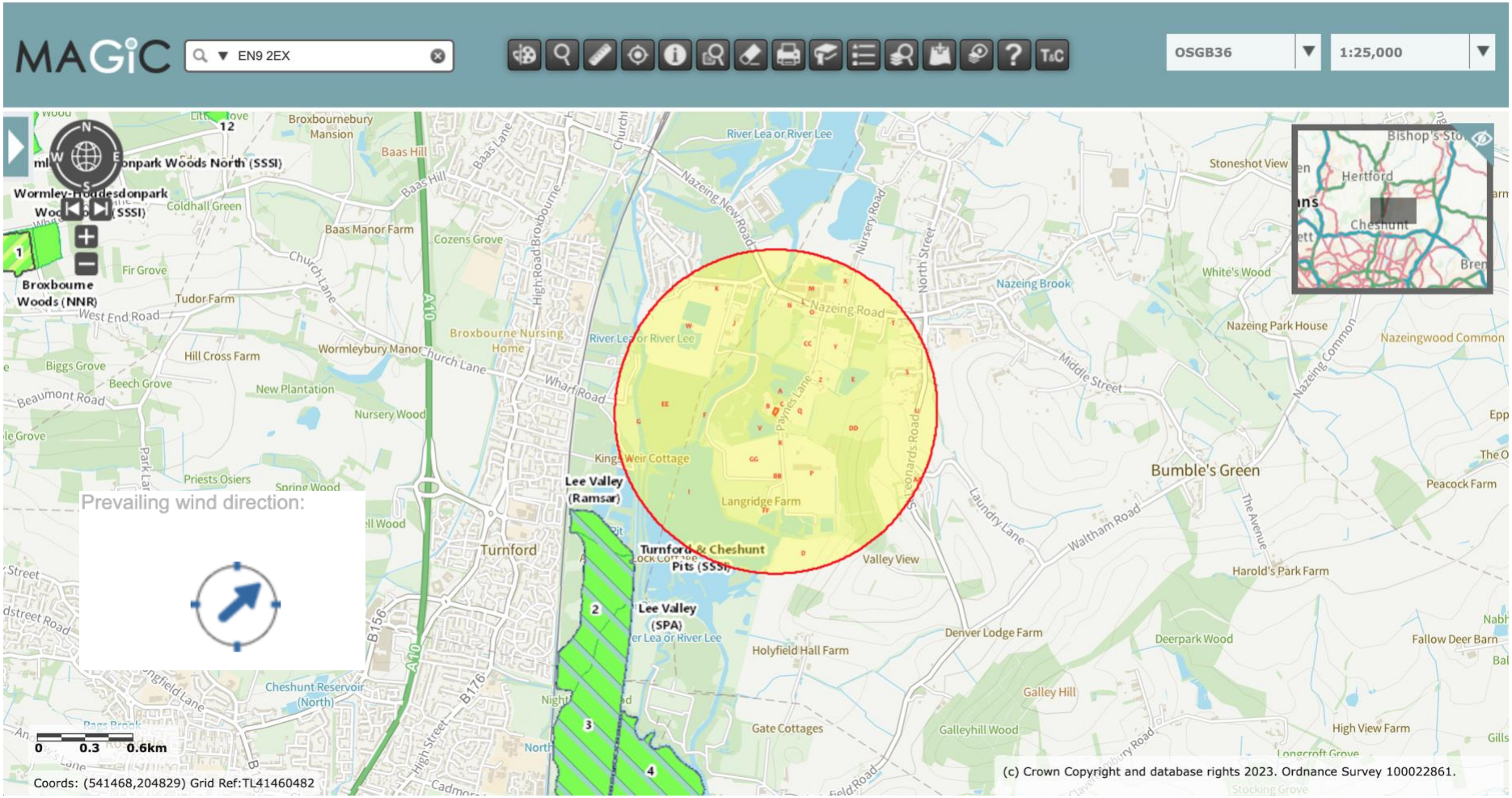
3.2.1 A receptor is the object (e.g., person, organism, resource, or property) impacted by a hazard. When identifying receptors which may be at risk from the site, the following have been considered:

- Deciduous Woodland;
- Local Nature Reserves (LNR);
- Locations used to grow food or to farm animals or fish;
- Drain and sewer systems;
- Factories and other businesses;
- Fields and allotments used to grow food;
- Roads and railways;
- Groundwater beneath the site;
- Residential Dwellings;
- Regionally important geological sites;
- Schools, hospitals, and other public buildings;
- Conservation and habitat protected areas;
- Water; and
- Playing fields and playgrounds.

3.2.2 Based on the assessment of the site setting presented in Section 2 of this Environmental Risk Assessment, the following principal receptors have been identified for assessment as presented in Figure 3 and detailed in Table 1 overleaf.

Table 1: Possible Receptors, Distance & Direction from Proposed Operation

Receptor Reference	Receptor Description	Direction From Site	Approximate Distance From Site Boundary (Metres)
A	Local Wildlife Sites (LWS) Lea Valley Central	North & West	90
B	Recycling Operation	Northwest/West	Adjacent
C	Commercial & Industrial Activities	Northeast	Adjacent
D	Open Fields/Land	Southeast	795.9
E	Clayton Hill Lake	Northeast	401.1
F	River Lea (Protected Species European Eel & Migratory Route)	West	394
G	River Lea (Protected Species European Eel & Migratory Route)	West	828.8
H	Kings Weir Cottage Residential	Southwest	893
I	Holyfield Lake	Southwest	707
J	Commercial & Industrial Activities	Northwest	558.6
K	Residential	Northwest	902
L	Nazeing Road (Infrastructure)	North/Northeast	726.5
M	Commercial & Industrial Activities	North/Northeast	740.8
N	Residential	North/Northeast	671.4
O	Residential	North/Northeast	674.8
P	Commercial & Industrial Activities	Southeast	522.1
Q	Commercial & Industrial Activities	East	135.1
R	Paynes Lane (Infrastructure)	South	84.1
S	Residential	East	857.6
T	Residential	Northeast	968.7
U	St Leonards Road (Infrastructure)	East	965.1
V	Waterbody	Southwest	69.5
X	Waterbody	Northeast	930.4
Y	Commercial & Industrial Activities	Northeast	516.8
Z	Commercial & Industrial Activities	Northeast	383.3
AA	Residential	Southeast	971.6
BB	Residential	South	325
CC	Commercial & Industrial Activities	Northeast	464.1
DD	Open Fields/Land	East	468.2
EE	Open Fields/Land	West	672.2
FF	Langdridge Farm	South	536.4
GG	Open Fields/Land	Southwest	290



<u>Figure 4:</u> Possible Receptors Identified within 1000m of the Application Site (Magic)

3.3 Pathways

Table 2: Pathways

Receptor	Hazard	Pathway
Humans & Property	Odour	Transmitted through the air
	Dust and Particular Matter	Transmitted through the air
	Noise & Vibration	Transmitted through the air/ground
	Birds, Vermin & Insects	Physical travel
	Fire	Physical contact and spread
Groundwater	Contaminated Runoff	Infiltration through the ground
Surface Water	Contaminated Runoff	Direct discharge from site
Atmosphere	Dust and Particular Matter	Transmitted through the air

3.4 Risk

3.4.1 Assessment of risk is based on the probability of receptor exposure to the identified hazards and the consequence of exposure. The initial assessment of risk is made assuming no risk management practices with the proposed mitigation measures being factored into the overall assessment of the proposed operation resulting in a residual risk level.

4. Fugitive Emissions to Air

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Release of Particulate Matter (Dusts)	Dust from Delivery of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Vehicles are sheeted during the transportation of all waste materials to the proposed site. In the event of dust generation, follow procedures detailed within Dust Management Action Levels escalating as necessary (DEMP Document). Dust Suppression Equipment Deployed (Hoses). Wind conditions will be monitored.	Low
	Dust from Deposit of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Wastes are deposited in the Waste Acceptance area (depending on material composition & type), which is constantly monitored during the unloading process. Waste Management areas benefit from solid concrete walls (sections of area), the deployment of micro netting (sections of area) and suppression equipment acting as a physical barrier to the transmission of dust. In the event of dust generation, follow procedures detailed within	Low

							Dust Management Action Levels escalating as necessary (DEMP Document). Dust Suppression Equipment Deployed (Hoses). Wind conditions will be monitored.	
	Dust from Processing of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Waste Management areas benefit from solid concrete walls (sections of area), the deployment of micro netting (sections of area) and suppression equipment acting as a physical barrier to the transmission of dust. Materials are sorted via mechanical assistance and no mechanical processing is proposed. In the event of dust generation, follow procedures detailed within Dust Management Action Levels escalating as necessary (DEMP Document). Dust Suppression Equipment Deployed (Hoses). Wind conditions will be monitored.	Low
	Dust from Storage of Waste	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial	Low	Low	Medium	Waste Management areas benefit from solid concrete walls (sections of area), the deployment of micro netting (sections of area) and suppression equipment acting as a	Low

			Activities Workforce. Receptors listed in Table 1.				physical barrier to the transmission of dust. Wastes are stored within containers/skips once sorted. In the event of dust generation, follow procedures detailed within Dust Management Action Levels escalating as necessary (DEMP Document). Dust Suppression Equipment Deployed (Hoses). Wind conditions will be monitored.	
	Dust from Loading of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Waste Management areas benefit from solid concrete walls (sections of area), the deployment of micro netting (sections of area) and suppression equipment acting as a physical barrier to the transmission of dust. Materials are loaded directly onto vehicles (skips/containers) and not dropped from a height, reducing the distance over which debris, dust and particulates could be blown and dispersed by winds. In the event of dust generation, follow procedures detailed within Dust Management Action Levels escalating as necessary (DEMP Document).	Low

							Dust Suppression Equipment Deployed (Hoses). Wind conditions will be monitored.	
	Dust from Track Out	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Surface cleaned/tidied on a regular basis to prevent the build up of particulates on the site surfacing. In the event of dust generation, follow procedures detailed within Dust Management Action Levels escalating as necessary (DEMP Document). Dust Suppression Equipment Deployed (Hoses). Wind conditions will be monitored.	Low

5. Noise & Vibration

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Noise & Vibrations from Vehicle Movements & onsite activities	Noise from Site Operation	Noise through the air and vibration through the ground	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	No engine idling is permitted onsite; all engines are turned off whilst waiting to tip. Operational Hours 7.30am-17:30pm (normal operational hours). Revving of engines will be kept to a minimum. Relevant plant and equipment will be fitted with appropriate sound attenuation and acoustic isolation and will be subject to regular inspection and maintenance schedules to maintain operational performance. Operatives complete daily defect checks on all equipment prior to operation. In the event of a mechanical issue with the equipment it will be isolated pending repair. Operatives are trained in noise management and the prompt reporting of any abnormal noise so that it can be rectified. Waste Management areas benefit from solid concrete walls (sections of area) as well as the wider site boundary and adjacent buildings act as a physical	Low

							barrier to transmission noise & vibration. The wider site boundary and adjacent buildings act as a physical barrier to transmission. See separately submitted Environmental Management System, Emissions Management Section, Noise & Vibration Procedure. Adjacent receptors are not deemed sensitive, and the nearest residential receptor is over 300 metres from the site and is not in the prevailing wind direction.	
	Noise from Delivery of Wastes (i.e., Vehicle Movements)	Noise through the air and vibration through the ground	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	Waste Management areas benefit from solid concrete walls (sections of area) as well as the wider site boundary and adjacent buildings act as a physical barrier to transmission noise & vibration. No engine idling is permitted onsite; all engines are turned off whilst waiting to tip. Revving of engines will be kept to a minimum. Operational Hours 7.30am-17:30pm (normal operational hours). Vehicles deposit loads one at a time, which is controlled by onsite operatives.	Low

							10mph speed limit enforced onsite; anyone speeding will be subject to disciplinary action. Drivers complete daily defect checks on all vehicles prior to operation. Vehicles will not be used if major or safety defects are identified. Vehicles are fitted with working exhaust silencing equipment. Relevant plant and equipment will be fitted with appropriate sound attenuation and acoustic isolation and will be subject to regular inspection and maintenance schedules to maintain operational performance. See separately submitted Environmental Management System, Emissions Management Section, Noise & Vibration Procedure. Operatives are trained in noise management and the prompt reporting of any abnormal noise so that it can be rectified. Adjacent receptors are not deemed sensitive, and the nearest residential receptor is over 300 metres from the site and is not in the prevailing wind direction.	

	Noise from Deposit of Wastes	Noise through the air and vibration through the ground	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	No engine idling is permitted onsite; all engines are turned off whilst waiting to tip. Operational Hours 7.30am-17:30pm (normal operational hours). Vehicles deposit loads one at a time, which is controlled by onsite operatives. 10mph speed limit enforced onsite; anyone speeding will be subject to disciplinary action. Revving of engines will be kept to a minimum. Operatives complete daily defect checks on all equipment prior to operation. In the event of a mechanical issue with the equipment it will be isolated pending repair. Waste Management areas benefit from solid concrete walls (sections of area) as well as the wider site boundary and adjacent buildings act as a physical barrier to transmission noise & vibration. All vehicles have the latest silencing equipment fitted as standard. Relevant plant and equipment will be fitted with appropriate sound attenuation and acoustic isolation and will be subject to regular inspection	Low

							and maintenance schedules to maintain operational performance. See separately submitted Environmental Management System, Emissions Management Section, Noise & Vibration Procedure. Operatives are trained in noise management and the prompt reporting of any abnormal noise so that it can be rectified. Adjacent receptors are not deemed sensitive, and the nearest residential receptor is over 300 metres from the site and is not in the prevailing wind direction.	
	Noise from Processing of Wastes	Noise through the air and vibration through the ground	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	Waste Management areas benefit from solid concrete walls (sections of area) as well as the wider site boundary and adjacent buildings act as a physical barrier to transmission noise & vibration. All Equipment/Machinery have daily defect checks completed by operators, with all defects reported to senior management for rectification. Operational Hours 7.30am-17:30pm (normal operational hours). Relevant plant and equipment will be fitted with appropriate sound attenuation and acoustic isolation and	Low

							will be subject to regular inspection and maintenance schedules to maintain operational performance. See separately submitted Environmental Management System, Emissions Management Section, Noise & Vibration Procedure. Operatives are trained in noise management and the prompt reporting of any abnormal noise so that it can be rectified. Adjacent receptors are not deemed sensitive, and the nearest residential receptor is over 300 metres from the site and is not in the prevailing wind direction.	
	Noise from Loading of Wastes	Noise through the air and vibration through the ground	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	Waste Management areas benefit from solid concrete walls (sections of area) as well as the wider site boundary and adjacent buildings act as a physical barrier to transmission noise & vibration. Materials are placed within containers/skips that are loaded directly onto vehicle bodies and not dropped from a height, reducing the potential impact of noise & vibration. Revving of engines will be kept to a minimum.	Low

							10mph speed limit enforced onsite; anyone speeding will be subject to disciplinary action. Operational Hours 7.00am-18:00pm (normal operational hours). See separately submitted Environmental Management System, Emissions Management Section, Noise & Vibration Procedure. Operatives are trained in noise management and the prompt reporting of any abnormal noise so that it can be rectified. Adjacent receptors are not deemed sensitive, and the nearest residential receptor is over 300 metres from the site and is not in the prevailing wind direction.	

6. Odour

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Release of Particulate Matter (Odours)	Odour from Delivery of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Vehicles are sheeted during the transportation of all waste materials to the proposed site. Drivers follow strict pre-acceptance inspections to ensure no malodorous wastes are delivered to site. If the load is judged to be too malodorous the driver will contact the weighbridge office for further instruction on transporting the waste to another waste management facility (if deemed necessary). In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document). Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary). Wind conditions will be monitored.	Low
	Odour from Deposit of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/	Low	Low	Medium	Wastes are deposited in the Waste Acceptance area (depending on material composition & type), is	Low

			Commercial Activities Workforce. Receptors listed in Table 1.				constantly monitored during the unloading process. Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour. In the event that malodorous wastes are inadvertently accepted, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival. In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document). Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary). Wind conditions will be monitored. Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.	
	Odour from Processing of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial	Low	Low	Medium	Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes.	Low

			Activities Workforce. Receptors listed in Table 1.				Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour. In the event that malodorous wastes are identified during the processing operations, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival. In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document). Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary). Wind conditions will be monitored.	
	Odour from Storage of Waste	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Management complete daily spot checks of the Depot, which includes the identification of malodorous wastes. Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour.	Low

							Storage time limits as specified in the submitted Fire Prevention Plan Document. Ongoing monitoring and inspection of wastes stored within the Depot. In the event that malodorous wastes are identified whilst being stored onsite, they will be isolated within an enclosed skip and removed from the site within 48 hours of arrival. In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document). Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary). Wind conditions will be monitored.	
	Odour from Loading of Wastes	Air Transportation then inhalation	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Low	Low	Medium	Only competently trained operatives complete loading operations to ensure they are carried out efficiently and effectively. Waste Management areas benefit from solid concrete walls (sections of area) and suppression equipment acting as a physical barrier to the transmission of odour. Management complete daily spot checks of the Depot, which includes	Low

							the identification of malodorous wastes. Vehicles are sheeted during the transportation of all waste materials to the proposed site. In the event of Odour generation, follow procedures detailed within Odour Management Action Levels escalating as necessary (OEMP Document). Odour Suppression Equipment Hoses utilised to limit Odour emissions (as deemed necessary). Wind conditions will be monitored.	

7. Litter

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Release of Litter	Litter Generated From Onsite Activities	Transport Through the Air & Over Land	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	Waste Management areas benefit from solid concrete walls (sections of area), the deployment of micro netting (sections of area) and suppression equipment acting as a physical barrier to the transmission of litter. The site will be carefully managed, including good housekeeping procedures, and regular checks will be made within and around the site for any litter/debris. Reaction time: Public highway immediately (within 1 hour of detection) & within the permitted boundary by the end of the working day. Operatives are trained in Emissions Management Procedures. See separately submitted Environmental Management System, Emissions Management Section, Litter Procedures (Contingency Plan). Wind conditions will be monitored.	Low

8. Pests

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Pests (files, vermin, birds) attracted to waste material	Pests	Transport Through the Air & Over Land	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	The site will be carefully managed, including good housekeeping procedures, and regular checks will be made within and around the site for any litter/debris to prevent the attraction of pests. Operatives are trained in Emissions Management Procedures. See separately submitted Environmental Management System, Emissions Management Section, Pests Procedures. Wind conditions will be monitored .	Low

9. Fugitive Emissions to Water

Hazard	Source	Pathway	Receptor	Probability of Exposure	Consequence	Magnitude of Risk	Risk Management	Residual Risk
Contaminated Surface Water Run Off/Fire Water Run Off	Contamination from Materials stored onsite	Percolation through soils, direct run off from site across the ground and entering surface water drains or natural channels/ ditches or groundwater	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	Responsible Person inspects condition of the impermeable surfacing and drainage channels with any noticeable deterioration rectified as soon as practicable. Regular inspections of equipment/machinery/vehicles will identify leaks at the earliest possible opportunity. Fuels/oils/AdBlue stored on site are provided with secondary containment. Leakage/Spillage Procedure details in submitted Environmental Management System. See dedicated Fire Prevention Plan on firewater containment.	Low
Chemicals & Oils Stored Onsite	Loss of containment on site	Percolation through soils, direct run off from site across the ground and entering surface water drains or	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce.	Medium	Medium	Medium	Site benefits from an impermeable surface and a sealed drainage system. Fuels/oils/AdBlue stored on site are provided with secondary containment. Leakage/Spillage Procedure details in submitted Environmental Management System. Regular inspections of equipment/machinery/vehicles & the	Low

		natural channels/ ditches or groundwater	Receptors listed in Table 1.				chemical storage areas will identify leaks at the earliest possible opportunity.	
Leakage & Spillage	Loss of containment on site	Percolation through soils, direct run off from site across the ground and entering surface water drains or natural channels/ ditches or groundwater	Local Human Population & Adjacent Industrial/ Commercial Activities Workforce. Receptors listed in Table 1.	Medium	Medium	Medium	Site benefits from an impermeable surfacing and a sealed drainage system. Regular inspections of equipment/machinery/vehicles will identify leaks at the earliest possible opportunity. Fuels/oils/AdBlue stored on site are provided with secondary containment. Leakage/Spillage Procedure details in submitted Environmental Management System.	Low

10. Habitats Risk Assessment Screening

Receptor	Screening Distance	Sensitive Characteristics & Reasons for Designation	Sensitivity Level	Sensitivity Assessment Through Embedded Mitigation	Residual Risk
Lea Valley Central (Local Wildlife Sites LWS)	200m	**Lee Valley Central** Deciduous Woodland Broadleaved Trees National Forest Inventory 2020. Located in the Lee Valley Regional Park, this site comprises two main areas, Nazeing Meads (to the north), and Nazeing Marsh. It comprises part of a regionally important chain of wetland habitats along the lower Lee Valley. This complex of sites is of great importance for its over-wintering wildfowl and other wetland birds and is a corridor through an intensively used landscape (detailed on the Essex Wildlife Trust Biological Records Centre). **(Distance 90 metres)**	Medium	The residual impact associated with the proposed operation would be nominal, based on the following conclusions: • Effective Fire Prevention Plan, Environmental Management System, Dust Emissions Management Plan & Odour Emissions Management Plan; • Onsite controls including those specified in the above Environmental Management Documentation including the concrete retaining walls & micro netting deployment at the top of external walls ensures that the potential for any emissions to reach the Receptor to be very low; • Any particulates are non-toxic; • Any emissions would be of such a diluted concentration to pose no impact on identified receptors. • The site will benefit from a sealed drainage system.	Low
Protected Species European Eel & Migratory Route	500m	Protected species European Eel & migratory route for European Eel. **(Distance 394 metres)**	Medium		Low

11. Conclusion

11.1.1 This Environmental Risk Assessment has been undertaken in accordance with regulatory guidance.

11.1.2 This qualitative risk assessment has considered fugitive emissions, noise & vibration, odour, litter, pests, and fugitive emissions to water. The assessment concludes that with the implementation of the risk management measures described above, and those contained in supplementary Odour Emissions Management Plan, Dust Emissions Management Plan, Fire Prevention Plan and the Environmental Management System Document, the proposed development is not likely to cause a significant environmental impact and no further assessment is required.

11.2 Noise Impact Assessment

11.2.1 Following completion of the site-specific Environmental Risk Assessment, it is not considered necessary to conduct a noise impact assessment on the proposed activity as the overall residual risk of noise and vibration emissions escaping beyond the permitted boundary is low due to the in-built mitigation measures detailed in this Environmental Risk Assessment and those measures contained within the Environmental Management System document. We would also note that the context of the site is relevant as the site is current operating off a number of Registered Exemptions with no issues raised and the fact that the site is within a large industrial and commercial area that would not be deemed sensitive, and the nearest Residential receptor is over 320 metres away from the site, which is not in the prevailing wind direction.