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Environmental Risk Assessment

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1 INTRODUCTION

This Environmental Risk Assessment (ERA) relates to Environmental Solutions Waste Management site 241 Engineers Road Greenham Business Park Newbury Berkshire RG19 6HN. The permit being applied for is based on the Standard rules SR2015 No15, Waste electrical and electronic equipment authorised treatment facility (ATF) excluding ozone-depleting substances. However, with the additional waste codes being added the site will reflect more of a waste transfer station. The addition of these extra waste codes enables Environmental Solutions Waste Management to provide a complete waste service for the commercial sector.

The purpose of the site is to reduce disposal of waste and encourage re-use , refurbishment or recycling of Waste Electrical and Electronics Equipment (WEEE) and other waste arising from business clearances..

The permit does not allow the treatment of WEEE containing ozone-depleting substances but this waste can be accepted for storage only. The treatment and storage of WEEE meets the technical requirements of the WEEE Directive (2012/19/EU). Treatment of WEEE is carried out using Appropriate Measures, Recovery and Recycling Techniques (BATRRT).

WEEE treatment must be carried out inside a building. There are no point source emissions to air outside the building. Treatment includes, dismantling, separation, shredding, screening, grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery.

The permitted activities are carried out within 200 m of a European Site, Ramsar site or a Site of Special Scientific Interest (SSSI). The activities are not carried out within 50 m of any well spring or borehole used for the supply of water for human consumption. This includes private water supplies. There is no burning of any wastes, either in the open, inside buildings or in any form of incinerator. On site managerial procedures mitigate the risk posed by the activities to these receptors.

The site is approx. 0.174 ha and operates from Monday to Friday from 08:00 until 17:00. Waste is delivered by Environmental Solutions Waste Management Ltd own fleet or third parties that have worked with the operator for a long time and is pre booked into site prior to arrival. For waste deliveries the site is accessed via its northern boundary as shown on Site layout Ground 004.1_09_007 and Site Layout 1st floor 004.1_09_007. Once the waste vehicle has arrived on site it will be directed to the correct location to deposit their waste. All waste received to the permitted facility are subject to the waste acceptance procedures prior to being unloading see Environmental Management System (EMS) 004.1_05_007. During this stage if any non-conforming wastes are identified they are rejected, where not possible they will be stored in an appropriate manner and removed from site to an appropriately authorised facility as soon as practicably possible.

1.1 Scope

This risk assessment is based on the source-pathway-receptor approach. All potential sources of pollution associated with the acceptance, treatment and storage of permitted inert and non-hazardous waste activities have been assessed against the principle receptor types identified within the site's vicinity.

The requirement for risk management measures is then dependent on a viable pathway being present between the source and the receptor. Where such a pathway exists, management measures are required to reduce risk.

1.2 Aims

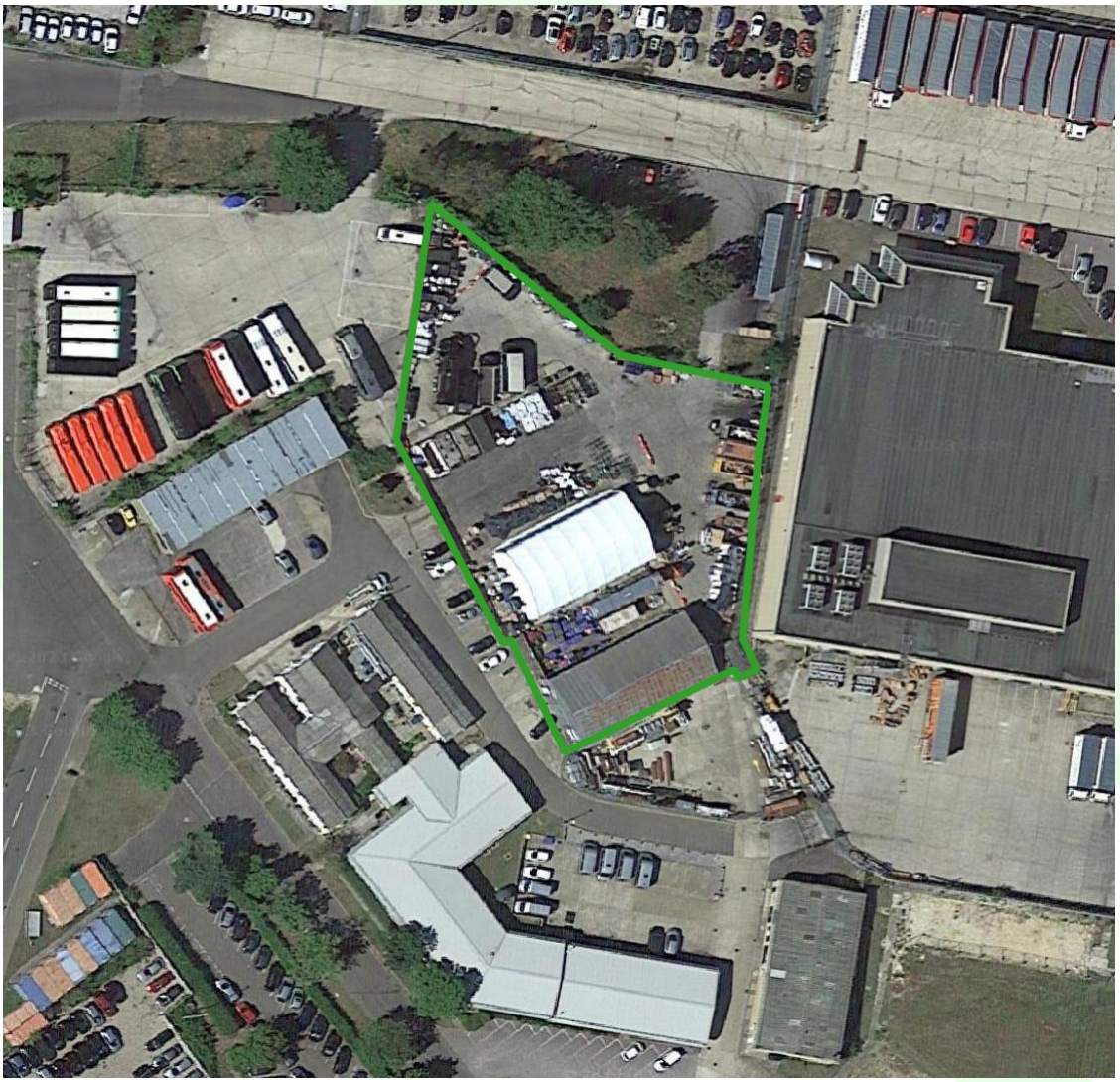
This assessment aims to consider potential environmental hazards associated with the activity, to identify sensitive receptors which these may impact, and determine the influence management practice has on reducing risk.

2 SITE SETTING

2.1 Location

The site is located at 241 Engineers Road Greenham Business Park Newbury Berkshire RG19 6HN, the grid reference for the site is SU 50102 64290 (eastings: 450102, northing 164290).

Figure 1 Site Location



2.2 Humans and Property

The site lies to the south east of Newbury and is located within an industrial area that historically has been an air base. The site can be accessed by the A339.

The site is approx.. 0.174 ha in area.

2.3 European Designated Receptors

1	SSSI - Greenham & Cookham Commons - Former Runway Area	178 m	N
2	SSSI - Greenham & Cookham Commons - Area West of Greenham Business Park	299 m	W
3	Ancient Woodland - Peckmoor Copse	407 m	WSW
4	SSSI - Greenham & Cookham Commons - Area East of Greenham Business Park	607 m	ESE
5	SSSI - Bowdon & Chamberhouse Woods	941 m	NNE
6	Ancient Woodland - Great Wood & Cakeball Copse	945 m	NE
7	Ancient Woodland - Gold Copse	1002 m	SSW
8	Ancient Woodland - Lillismoor Copse	1335 m	SSW
9	Ancient Woodland - Westlands Copse	1614 m	SSE
10	SSSI - River Kennet	1679 m	NNE
11	Ancient Woodland - Cranbow Gully	1771 m	SW

2.4 Designated Receptors

Not European designated receptors but of impact to permitting.

1	BAP - Lowland Heathland throughout Greenham & Cookham Commons	152 m	N
2	BAP - Deciduous Woodland surrounding Greenham & Coookham Commons	288 m	ESE
3	BAP - Coastal & Floodplain Grazing Marshes adjacent to the River Enborne	815 m	SW
4	BAP - Traditional Orchards at Bishops Green	1213 m	SSE
5	BAP - Good Quality Semi-Improved Grassland between Bishops Green & Headley	1310 m	SSE
6	BAP - Coastal & Floodplain Grazing Marshes adjacent to the River Kennet	1766 m	NNE
7	BAP - Lowland Dry Acid Grassland at Headley	1826 m	SSE

2.5 Geology

Table 1 Geology

Artificial Ground/Made Ground	On site, LSGR-UKNOWN Landscaped Ground (Undivided) Unknown/unclassified.
Superficial and Drift Geology	On site SIGR-XSV Silchester gravel member sand and gravel.

Bedrock and Solid Geology	On site LC-SANDU London Clay Formation - Sand Eocene Epoch

2.6 Hydrogeology

Superficial Aquifer

Secondary A Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

Bedrock Aquifer

Secondary A Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

2.7 Hydrology

Secondary A Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. Secondary A Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

2.8 Flood Risk

The site is at no risk of flooding from rivers or coastal sources. There is no risk of surface water flooding on site. There is a moderate risk of groundwater flooding on site.

2.9 Air Quality

Site is not in an AQMA.

2.10 Nature of Risk Assessment

This document provides a broad and general assessment of the risk factors considered to be of significance for the site, and an evaluation of the impact from the principle risk factors to receptors within the site vicinity.

3 METHODOLOGY

3.1 Hazard Identification

The Environment Agency's 'H1 Software Tool Version 2.78 April 2017', has been used to undertake a series of risk assessments to reveal the potential impact of the sites waste activities of their releases upon the local environment.

3.2 Types of Waste Activity Hazards

Hazard		Sources	Risk	Further Assessment
Odour	• Odour from storage • Odour from processing • Odour from Transfer	1. Waste delivery 2. Storage 3. Treatment Process 4. Material dispatch	• Non Conforming wastes	Table 8 Odour
Noise and Vibration	• Engine Noise (idling) • Noise from vehicle and plant movement. • Noise form reverse warnings • Noise form waste processing • Vibration from plant and vehicle movements	1. Waste delivery 2. Storage 3. Treatment Process 4. Material dispatch	• Processing and storage occurs inside a building.	Table 9 Noise and Vibration
Fugitive Emissions	• Dust from waste processing • Dust from Stored Waste • Litter form waste storage and/or treatment • Litter from vehicle movements • Pest form waste storage	1. Waste delivery 2. Storage area run-off pre and post treatment 3. Treatment Process 4. Material dispatch 5. Fire Water	• Dust and particulate matter liberated from external areas only during dry conditions. • Loss of material during unloading, treatment and dispatch of waste.	Table 10 Fugitive Emissions

	• Runoff from site operations			
Accidents	• Leak from onsite oil storage • Transfer of substances • Plant of Equipment Failure • Fire in waste materials • Flooding • Vandalism	1. Waste delivery 2. Storage 3. Treatment Process 4. Material dispatch 5. Fire Water 6. Flood risk from Rivers, Sea or surface water. 7. Unauthorised access	• Loss of waste from vehicles • Spillages from processing equipment and vehicles transferring waste in to and out of site. • Damage to processing equipment and site infrastructure by vandals. • Uncontrolled emissions of fire water and smoke.	Table 11 Accidents
Sensitive Areas	• Damage to protected ecosystems	1. Waste delivery 2. Storage 3. Treatment Process 4. Material dispatch 5. Fire Water	• Sensitive receptors located around site impacted by normal operating activities and those during an incident.	Table 8 Odour Table 9 Noise and Vibration Table 10 Fugitive Emissions Table 11 Accidents

If a hazard has been identified by the H1 screening tool that is may have an environmental impact these have been identified had have been provided mitigation in Section 4 of this document.

3.3 Identify Receptors

Receptors are those sites/activities that are at risk form the hazards that a waste activity may have impact on and are defined as below:

- Protected sites and species
- Anywhere 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
- Footpaths
- Groundwater, groundwater source protection zone
- Homes, or groups of homes (such as villages or housing developments
- Playing fields and playgrounds
- Private drinking water supplies
- Regionally important geological
- Schools, hospitals and other public buildings
- Water, for example ponds, streams, rivers, lakes or the sea –
- Conservation and habitats protected areas and areas of scientific interest

The receptors most likely to be impacted by the waste sites activities are listed below in Table 2 Key Receptors

Table 2 Key Receptors

TYPE OF RECEPTOR	ID #	DESCRIPTION	DISTANCE FROM BOUNDARY (M) APPROX	DIRECTION
		SITE		
HUMANS AND PROPERTY		Site Workers	On site	-
		Site Visitors	On site	-
		COMMERCIAL		
	1	Greenham Business Park - Vehicle Storage to the North	0 m	N
	2	Greenham Business Park - Smaller Units to the South East	0 m	SE
	3	Greenham Business Park - Larger Units to the West	86 m	WSW
	4	Sewage Works off Ecchinswell Road	792 m	SSE
	5	Scrap Yard off Thornford Road	896 m	SE
	6	Darling Buds of May (Garden Centre)	1009 m	SSE
	7	Four Kingdoms Adventure Park	1063 m	SE
	8	Vehicle Storage Facility off Brackenwood Lane	1126 m	WNW
	9	Bishops Green Farm Campsite	1151 m	SSE
	10	Cherry Bird Country Park (Caravan Park)	1578 m	NNW
	11	Assumed Residential Development off New Road	1874 m	NW
		RESIDENTIAL		
	1	Residential Properties east of Greenham Business Park	431 m	ESE
	2	Residential Properties south of the A339	437 m	SSW
	3	Residential Properties within Bowdon Woods	673 m	NNE
	4	Residential Properties off Burys Bank Road	1041 m	NW
	5	Residents of North Sydmonton	1069 m	S
	6	Residents of Bishops Green	1259 m	SE
	7	Residential Property off Thornford Road	1274 m	ESE
	8	Residential Properties at Newbury & Crockham Golf Club	1298 m	N
	9	Residents of Greenham	1727 m	NW
	10	Residents of Headley	1887 m	SE
		PUBLIC USE		
	1	Greenham Control Tower Museum	676 m	NNW
	2	Mill Hall (School)	1479 m	NW
		PUBLIC RIGHTS OF WAY (PROW)		
	-	Footpath adjacent to the River Enborne	792 m	SSE
	-	Footpath between Ecchinswell Road & Featherbed Lane	795 m	S
	-	Footpath between Bowdown Woods & the River Kennet	1092 m	N
	-	Footpath between Brackenwood Lane & Featherbed Lane	1282 m	SW

	-	Footpath between Burys Bank Road & Pigeon Farm Road	1573 m	NW
	-	Footpath between Burys Bank Road & the River Kennet	1754 m	NE
		ROADS & RAILWAYS		
	-	Apron Road	12 m	N
	-	Main Street	50 m	SW
	-	A339	378 m	S
		RECREATIONAL		
	1	Greenham Common	182 m	NNE
	2	Newbury & Crockham Golf Club	917 m	NNW
	3	Newbury Racecourse	1756 m	NNW
	4	Wormersley Road Playground	1795 m	NW
	5	Sandleford Priory	1851 m	W
		AGRICULTURAL		
	1	Packets of Arable Land between Bishops Green & North Sydmonton	773 m	S
	2	Packets of Arable Land between Ecchinswell Road & the A339	775 m	SW
	3	Packets of Arable Land between Thornford Road and the A339	1315 m	SE
	4	Packets of Arable Land north of Newbury & Crookham Golf Club	1455 m	NNW
	5	Packets of Arable Land south of the River Kennet	1536 m	NNE
		ATMOSPHERE		
	-	Not located within an AQMA	-	-
WATER		**SURFACE WATER**		
	-	River Enborne	816 m	SW
	-	Ponds at Greenham Common	824 m	NNW
	-	Ponds north of Bowdown Wood	1579 m	NNE
	-	River Kennet	1721 m	NNE
	-	Lake off Hambridge Lane	1925 m	NNW
		GROUNDWATER		
	-	Bedrock- Secondary A	On site	-
	-	Superficial Drift- Secondary A	On site	-
ENVIRONMENTALLY SENSITIVE		**DESIGNATED SITES (European)**		
	1	SSSI - Greenham & Cookham Commons - Former Runway Area	178 m	N
	2	SSSI - Greenham & Cookham Commons - Area West of Greenham Business Park	299 m	W
	3	Ancient Woodland - Peckmoor Copse	407 m	WSW
	4	SSSI - Greenham & Cookham Commons - Area East of Greenham Business Park	607 m	ESE
	5	SSSI - Bowdon & Chamberhouse Woods	941 m	NNE
	6	Ancient Woodland - Great Wood & Cakeball Copse	945 m	NE
	7	Ancient Woodland - Gold Copse	1002 m	SSW
	8	Ancient Woodland - Lillismoor Copse	1335 m	SSW
	9	Ancient Woodland - Westlands Copse	1614 m	SSE

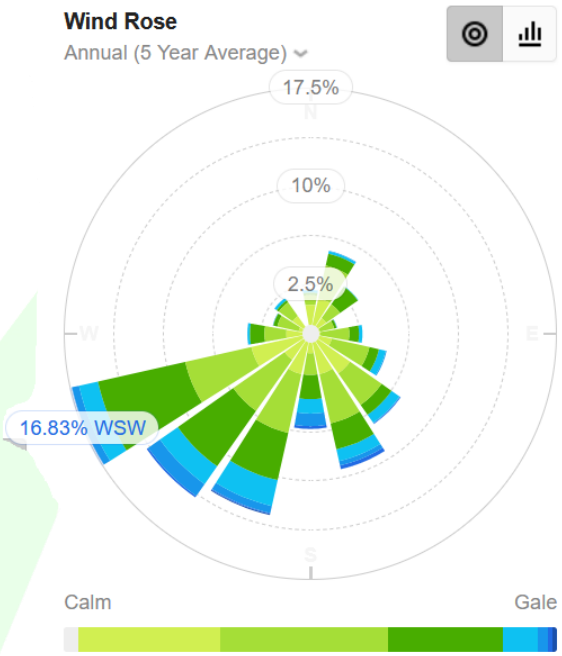
	10	SSSI - River Kennet	1679 m	NNE
	11	Ancient Woodland - Cranbow Gully	1771 m	SW
		NON-DESIGNATED SITES		
	1	BAP - Lowland Heathland throughout Greenham & Cookham Commons	152 m	N
	2	BAP - Deciduous Woodland surrounding Greenham & Coookham Commons	288 m	ESE
	3	BAP - Coastal & Floodplain Grazing Marshes adjacent to the River Enborne	815 m	SW
	4	BAP - Traditional Orchards at Bishops Green	1213 m	SSE
	5	BAP - Good Quality Semi-Improved Grassland between Bishops Green & Headley	1310 m	SSE
	6	BAP - Coastal & Floodplain Grazing Marshes adjacent to the River Kennet	1766 m	NNE
	7	BAP - Lowland Dry Acid Grassland at Headley	1826 m	SSE
HERITAGE LOATIONS		**LISTED BUILDINGS AND PARKS**		
	1	Grade II Listed - RAF Greenham Wing Headquarter & Combat Support Offices	601 m	WNW
	2	Scheduled Monument - Greenham Common Airbase Cruise Missile Shelter	1280 m	WNW
	3	Grade II Listed Buildings - Knightsbridge House & 2 No. Cottages	1358 m	SE
	4	Grade II Listed Buildings - 2 No. Barns at Pigeon Farm	1538 m	NNW
	5	Grade II Listed Buildings - Adbury House & Stable Block	1641 m	SW
	6	Grade II Listed Buildings - Greenham Lodge & Stable Block	1673 m	NW
	7	Grade II Listed Building - Thornford Cottage	1731 m	ESE

3.4 Wind Rose

Wind rose shows the prevailing wind direction for the waste site.

Sensitive receptors have been identified up to 2 km and are shown on the sensitive receptors plan 004.1_09_008. A full list of receptors is also shown in the sensitive receptors in Table 2 Key Receptors. The sensitive receptors shown are in all directions of the site. The closest observing station where weather data is available is Heads Hill approximately 2 km to the east of the site (based on observations between 2017 – present). Figure 2 Wind Rose below shows the wind rose for Heads Hill which indicates the prevailing wind is WSW.

Figure 2 Wind Rose



(www.Willyweather.co.uk)

3.5 Pathways

Table 3 Potential Pathways

Hazard	Potential Receptors	Pathway
Odour	Humans/Property/ Sensitive Areas (Designated)	Atmosphere
Noise and Vibration		Atmosphere, Physical
Fugitive Emissions	Ground Water/Humans/Property/ Sensitive Areas (Designated)	Atmosphere, Physical
Fire, Spills and Contaminated surface water.		Atmosphere, Physical, Infiltration via the ground
Vermin, Birds, Insects	Humans/Property/ Sensitive Areas (Designated)	Atmosphere, Physical

3.6 Risk

Environmental Risk is the probability of a receptor being exposed to an environmental hazard and the impact of such exposure. The Primary risk is assessed with no mitigation in place such as managerial procedures and physical engineering.

To assess risk the probability and the consequence of exposure have to be assessed see below tables.

Table 4 Probability of Exposure

Probability of exposure
HIGH – exposure is probable: direct exposure likely with no / few barriers between hazard, source and receptor.
MEDIUM – exposure is fairly probable: feasible exposure possible, barriers to exposure less controllable.
LOW – exposure is unlikely: several barriers exist between hazards source and receptors to mitigate against exposure.
VERY LOW – exposure is very unlikely; effective, multiple barriers in place to mitigate against exposure.

Table 5 Consequence of Exposure

Consequences of Exposure
HIGH – the consequences are severe: sufficient evidence that short or long term exposure may result in serious damage.
MEDIUM – consequences are significant; sufficient evidence that exposure to hazard may result in damage that is not severe in nature and reversible once exposure ceases (e.g. irritant).
LOW – consequences are minor; damage not apparent though reversible adverse changes may occur.
VERY LOW – consequences are negligible; no evidence of adverse changes following exposure.

Application of the probability and consequences of an hazard gives a risk rating as shown by the matrix below in

Table 6 Risk Matrix

		Consequences			
		Very Low	Low	Medium	High
Likelihood	High	Low	Medium	High	High
	Medium	Low	Medium	Medium	High
	Low	Low	Low	Medium	Medium
	Very Low	Very Low	Low	Low	Low

3.7 Management of Risk

For all the hazards identified in section 3.2 above, managerial procedures and hard infrastructure engineering have been developed in accordance with relevant guidance documents[1][2][3][4]

Residual risk will remain and these are detailed in Table 8 Odour, Table 9 Noise and Vibration, Table 10 Fugitive Emissions and Table 11 Accidents.

[1] https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit#odour-management-plan
[2] Sector Guidance Note S5.06: Recovery and disposal of hazardous and non-hazardous waste
[3] H3 Noise Assessment and Control (Part 2)
[4] H1 Software Tool Version 2.78 April 2017'

Table 7 Activity Risks

Reference	Process
AR1	Waste receipt
AR2	Waste storage pending treatment or recovery/disposal
AR3	Waste treatment processes
AR4	Material dispatch for recovery/disposal

Table 8 Odour

Odour							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR2** **Storage (Secure Storage)** **AR3** **Treatment processes** Treatment consisting of dismantling, separation, shredding, screening,	**Humans & Property** **Protected Nature Conservation Sites** **Atmosphere** *Inhalation of particles.* *Deposition of dust/particles on property and land.*	**Air**	**MEDIUM**	**MEDIUM**	**MEDIUM**	• All vehicles delivering and collecting materials to/from the site are covered or containerised. • Daily maintenance and inspection of storage areas. • All vehicles, plant and machinery would be operated and maintained in accordance with manufacturer's specifications. • Process equipment regularly cleaned to remove particulates. • Odorous materials are always containerised.	**LOW**

grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery. **AR4** **Material Dispatch** (Recovery/disposal)						• Odorous materials are removed within 76 hours. • 004.1_05_012 OMP provides managerial procedures to prevent odour.	

Table 9 Noise and Vibration

Noise and Vibration							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR2**	**Noise sensitive locations**[5] **Protected Nature Conservation Sites** .	**Air,** **Land**	**LOW**	**MEDIUM**	**MEDIUM**	• Machinery is inspected and maintained regularly in line with manufacturer's recommendations. • Daytime operations only. • Industrial/commercial location increased levels of background noise. • Environment Agency (EA) were requested to screen for the requirement for an Noise Impact Assessment during pre app. The EA decided this was not required nor an Noise and	**LOW**

[5] **Notes:** Noise–sensitive location defined in H3 *Horizontal Guidance for Noise Part 2 – Noise Assessment and Control* published by the Environment Agency as - *'Any dwelling, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or area of high amenity, which for its proper enjoyment requires the absence of noise at nuisance levels'*. Part 1 of H3 suggests that '*commercial premises may be* [noise sensitive], *depending upon the activities undertaken there'*.

Storage (Secure Storage) **AR3** **Treatment processes** Treatment consisting of dismantling, separation, shredding, screening, grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery **AR4** **Material Dispatch** (Recovery/disposal)						Vibration Management Plan see section 01 of the application pack. • 004.1_05_007 EMS provides managerial procedures to prevent noise and vibration	

Table 10 Fugitive Emissions

Litter and Debris							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR2** **Storage (Secure Storage)** **AR3** **Treatment processes** Treatment consisting of	**Humans & Property** **Protected Nature Conservation Sites** *Litter Nuisance*	**Air;** **windblown, physical transport and deposition**	**LOW**	**MEDIUM**	**MEDIUM**	• All vehicles delivering and collecting materials to/from the site are covered. • Waste types accepted are pre sorted reducing risk of litter and debris • Daily housekeeping of site surfaces to remove litter and debris and prevent spread. • Daily maintenance and inspection of storage areas. • Training provided to all relevant staff to collect loose litter and debris on a see it pick it up basis. • All waste processing activities occur inside see site Layout plans 004.1_09_006 and 004.1_09_007.	**LOW**

Litter and Debris							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
dismantling, separation, shredding, screening, grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery **AR4** **Material Dispatch** (Recovery/disposal)						• External use is for containerised or baled waste. • 004.1_05_011 EMP provides managerial procedures to prevent litter and debris	

Water							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR2** **Storage (Secure Storage)** **AR3** **Treatment processes** Treatment consisting of dismantling, separation, shredding, screening,	**Protected Nature Conservation Sites** **Surface Water** **Groundwater** *Contamination*	**Land, water, runoff**	**LOW**	**LOW**	**LOW**	• All waste transfers are overseen by a competent person. • Daily site inspections and good housekeeping procedures in place – recorded in site diary. • Spill kits on site and employees are trained in their use and disposal. • Fuel/oil storage is in accordance with the Oil Storage Regulations and provided with secondary containment. • No waste stored within 10 m of a water course • No waste stored within 50 m of any spring or borehole • All waste stored internally undercover or containerised.	**LOW**

Water							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery **AR4** **Material Dispatch** (Recovery/disposal)						• Waste stored on impermeable siter surface within a building. • 004.1_05_007 EMS provides managerial procedures to prevent ingress of rain water.	

Mud and Debris							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR4** **Material Dispatch** (Recovery/disposal)	**Humans & Property** *Amenity impact*	**Direct deposition**	**LOW**	**MEDIUM**	**MEDIUM**	• Daily inspections by site staff and records kept. • Road sweeping as required. • Transport vehicles inspected when leaving site and cleaned as required. • Waste is not known to originate from locations that are muddy. • Waste is inherently non muddy. • 004.1_05_007 EMS provides managerial procedures to prevent mud and debris escaping.	**LOW**

Pest, Vermin, Scavengers							
Identifying the harm and what could be harmed			**Assessing the risk**			**Managing the risk**	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**

Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR2** **Storage (Secure Storage)** **AR3** **Treatment processes** Treatment consisting of dismantling, separation, shredding, screening, grading, baling, shearing, compacting, crushing, granulation, repair	**Humans & Property** **Protected Nature Conservation Sites**	**Air; Ground depending on vector**	**LOW**	**MEDIUM**	**MEDIUM**	• Daily site inspections and good housekeeping procedures in place. • Permitted wastes unlikely to attract scavenging animals • Waste stored in a building or containers. • 004.1_05_007 EMS provides managerial procedures to prevent pest and vermin.	**LOW**

or refurbishment, or cutting of waste into different components for recovery **AR4** **Material Dispatch** (Recovery/disposal)							

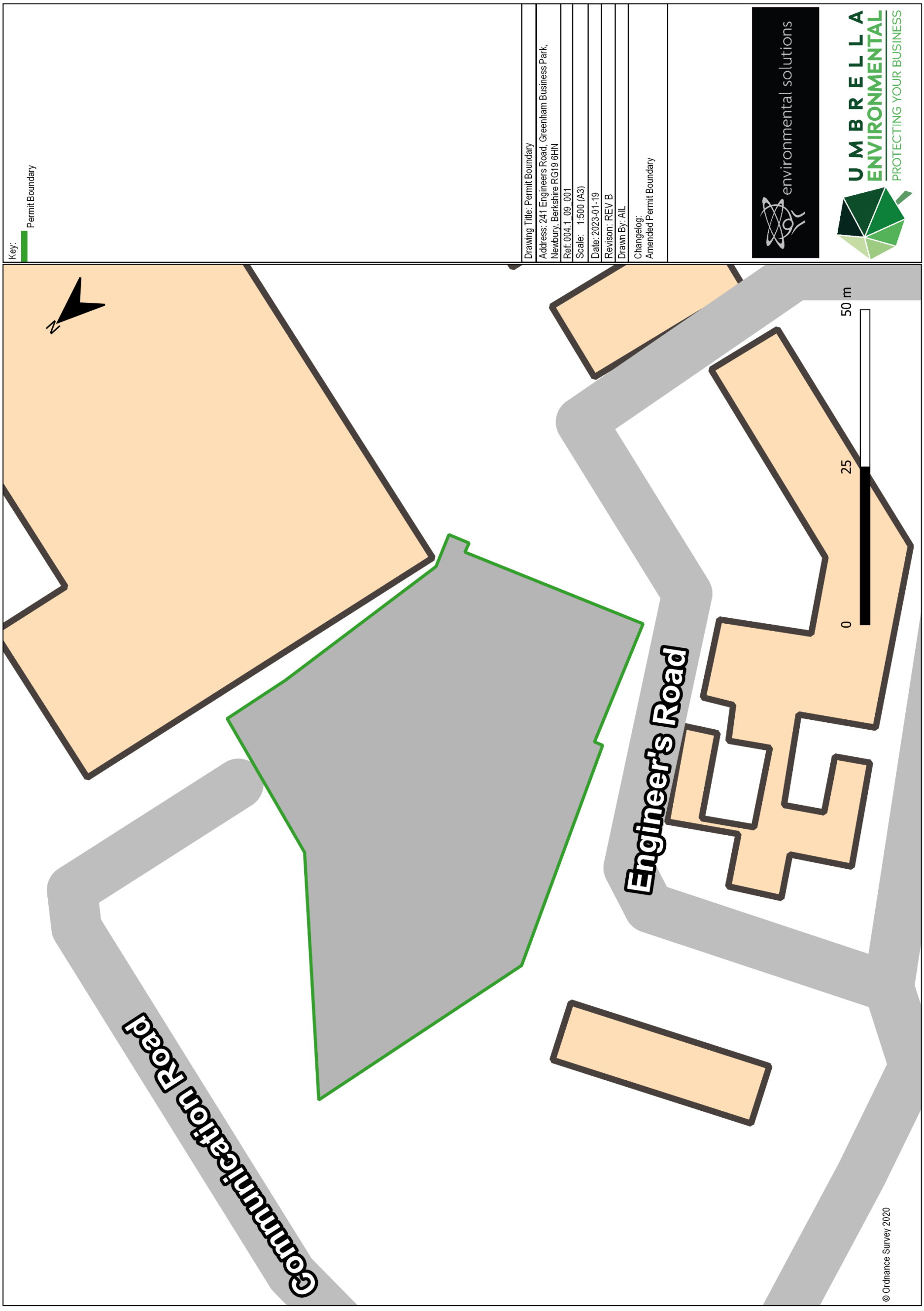
Table 11 Accidents

Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
TRANSFERRING SUBSTANCES							
AR1 **Reception** (delivery of waste to the site) Vehicle Movements (waste delivery, movement of waste within the site and transfer of waste out of site) **AR2** **Storage (Secure Storage)** **AR3** **Treatment processes** Treatment consisting of	**Humans & Property** **Protected Nature Conservation Sites** **Surface Water** **Groundwater** **Atmosphere** *Adverse impact*	**Land, air, water**	**LOW**	**MEDIUM**	**MEDIUM**	• All vehicles delivering and collecting materials to/from the site are covered. • All waste that arrives is either containerised or on pallets • All waste transfers are overseen by a competent person. • Fuel/oil storage is in accordance with the Oil Storage Regulations and provided with secondary containment. All stored within secured perimeter. • Limited vehicle movements on site and 10 mph speed limit • Spill kits on site and employees are trained in their use and disposal.	**LOW**

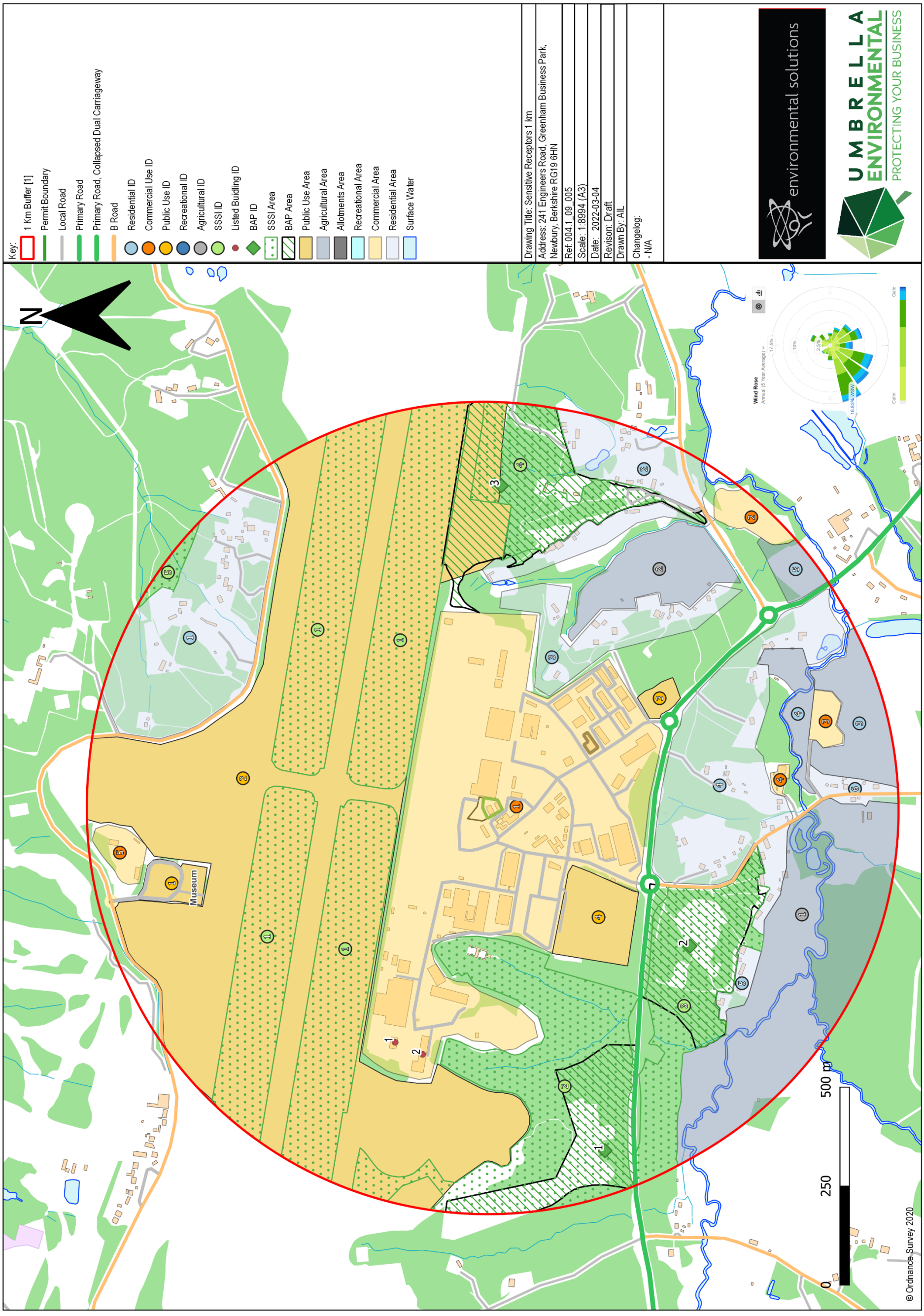
Identifying the harm and what could be harmed			Assessing the risk			Managing the risk	
Hazard	**Receptor**	**Pathway**	**Probability of exposure**	**Consequence**	**Overall risk**	**Risk Management**	**Residual risk**
Potential to cause harm?	*What's the risk? What do I wish to protect?*	*Route of hazard to the receptor?*	*Likelihood of this contact?*	*Harm that can be caused?*	*Remaining Risk*	*Measures to reduce the risk?*	*Residual risk after the application of managerial procedures?*
dismantling, separation, shredding, screening, grading, baling, shearing, compacting, crushing, granulation, repair or refurbishment, or cutting of waste into different components for recovery **AR4** **Material Dispatch** (Recovery/disposal)						• Deposit of waste occurs within a designated area and or Containers.. • 004.1_05_007 EMS provides managerial procedures to prevent accidents	

4 DRAWINGS

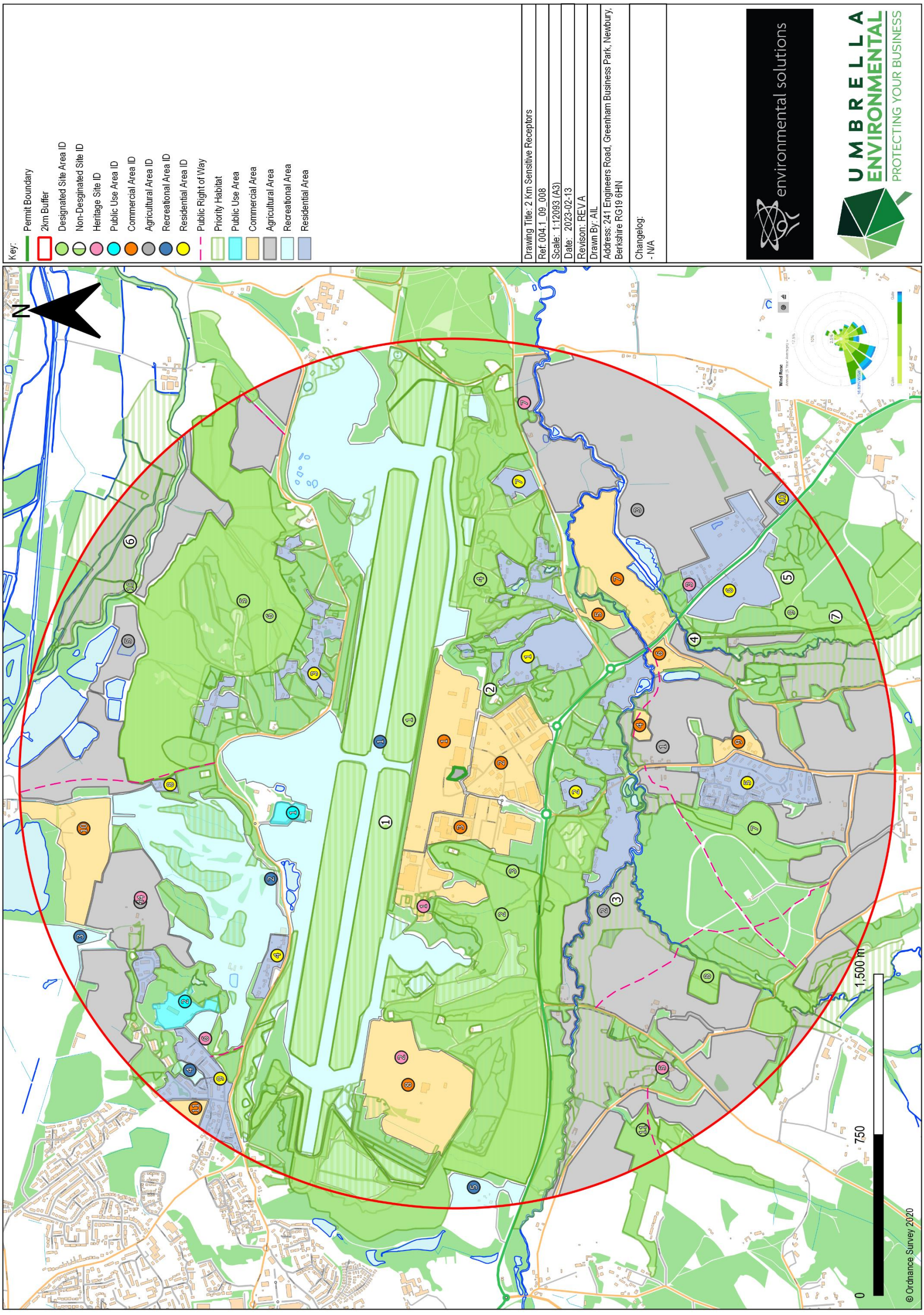
Drawing 1 004.1_09_001 Permit Boundary



Drawing 2 004.1_09_005 Sensitive Receptors 1 km



Drawing 3 004.1_09_008 Sensitive Receptors 2 km



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