



# Environmental Risk Assessment

Guy and Wright Ltd.



*Helping clients prosper through compliance*

---

## SITE DETAILS

### **Guy and Wright Ltd**

The Vineries  
Green Tye  
Much Hadham  
Herts  
SG10 6JJ

---

## OPERATOR DETAILS

### **Guy and Wright Ltd.**

The Vineries  
Green Tye  
Much Hadham  
Herts  
SG10 6JJ

---

## PERMIT REFERENCE

EPR/PP3793EU

## DOCUMENT REFERENCE

K163.1~09~004

---

## ISSUE DATE

27/02/2026



**Wiser Environment Ltd**, Suite 11 Manor Mews, Bridge Street, St Ives, PE27 5UW  
94 Xuan Thuy, Thao Dien Ward, District 2, Ho Chi Minh City, 713385  
+44 1480 462 232 | [www.wiserenvironment.co.uk](http://www.wiserenvironment.co.uk) | [info@wisergroup.co.uk](mailto:info@wisergroup.co.uk)

## DOCUMENT CONTROL

<b>DOCUMENT TITLE:</b>	Environmental Risk Assessment
<b>REFERENCE:</b>	K163.1~09~004
<b>CLIENT:</b>	Guy and Wright Ltd
<b>REPORTED BY:</b>	Wiser Environment Limited
<b>STATUS:</b>	Final
<b>ISSUE:</b>	01
<b>ISSUE DATE:</b>	27/02/2026
<b>AUTHOR:</b>	Wiser Environment Limited
<b>APPROVED BY:</b>	Guy & Wright Ltd

## REVISION HISTORY

REFERENCE	DATE	ISSUE:	REVISION SUMMARY
K163.1~09~004	29/01/2026	D1	For client review.
K163.1~09~004	27/02/2026	01	For EA Submission.

## QUALITY CONTROL

ACTION	DATE	NAME
Prepared	01/12/2025	Eleanor Northey
Checked	03/12/2025	Hannah Davies
Approved	30/12/2025	Andrea Petrolati

## CONTENTS

<b>1. INTRODUCTION .....</b>	<b>6</b>
1.1. Scope.....	6
1.2. Aims .....	6
<b>2. SITE SETTING .....</b>	<b>7</b>
2.1. Location .....	7
2.2. Humans and Property .....	7
2.3. Environmentally Sensitive Sites.....	8
2.3.1. Designated Environmental Receptors .....	8
2.3.2. Non-Statutory Designated Receptors .....	8
2.4. Geology.....	9
2.5. Hydrogeology .....	9
2.6. Hydrology .....	10
2.7. Flood Risk .....	10
2.8. Groundwater Flooding.....	10
2.9. Air Quality.....	10
2.10. Nature of Risk Assessment .....	10
<b>3. METHODOLOGY .....</b>	<b>11</b>
3.1. Hazard Identification.....	11
3.2. Receptors.....	12
3.3. Prevailing Wind Direction .....	17
3.4. Pathways.....	17
3.5. Risk.....	18
3.6. Risk Management .....	19
3.7. Residual Risk .....	20
<b>4. RISK ASSESSMENT.....</b>	<b>21</b>
<b>5. APPENDICES .....</b>	<b>22</b>

## TABLES

TABLE	TITLE
Table 1	Designated Sites
Table 2	Non-Statutory Designated Sites
Table 3	Surface Water Features
ERA1	Identified Hazards
ERA2	Receptors
ERA3	Pathways
ERA4	Probability of Exposure
ERA5	Consequence of Exposure
ERA6	Assessing Overall Risk
ERA7	Environmental Risk Points

## FIGURES

FIGURE	TITLE
Figure 1	Aerial image of the site, showing the permit boundary in green
Figure 2	Willyweather wind rose. Annual 5-year average (2020-2025)

## DRAWINGS

REFERENCE	TITLE	DATE
K163.1~20~040	Permit Boundary Plan (Rev 1)	03/12/2025
K163.1~20~042	Site Setting Plan (1km) (Rev 1)	29/01/2026
K163.1~20~043	Site Setting Plan (2 km) (Rev 1)	29/01/2026

## APPENDICES

REFERENCE	TITLE	DATE
Appendix A	ERA Tables: K163.1~09~004	26/01/2026
Appendix B	Groundsure Report (GS-ZJU-678-PZ4-6NA)	02/12/2025
Appendix C	Air quality assessment for four CHP engines at Green Tye Farm, Much Hadham	15/12/2025
Appendix D	DSEAR Assessment: BRE Global Client Report	13/06/2016

## 1. INTRODUCTION

This document is the Environmental Risk Assessment (ERA) that accompanies the application for a substantial variation at Guy & Wright Ltd, The Vineries, Green Tye, Much Hadham, Herts, SG10 6JJ ('the site'). The site is located at National Grid Reference TL 44251 18635.

The current permit (EPR/PP3793EU/V005) permits a non-IED Installation for an Anaerobic Digestion facility (under 100 tonnes/day), with the treatment of animal wastes limited to less than 10 tonnes/day. Storage of digestate is also permitted via on-site lagoons and biogas is burnt in 3 Combined Heat and Power Engines. The resultant heat is used within neighbouring commercial greenhouses. Waste types accepted are primarily organic wastes from the European Waste Catalogue Chapter 02 and Chapter 19. The quantity of waste processed at the site is no more than 100 tonnes/day.

The application has been prepared by Wiser Environment Limited on behalf of the applicant Guy and Wright Ltd. The ERA has been produced in line with Environment Agency guidance, 'Risk assessments for your environmental permit'<sup>1</sup>.

This ERA identifies potential environmental risks and proposes mitigating measures that can reduce adverse impacts and should be read in conjunction with the other supporting documents included within the application.

### 1.1. Scope

This risk assessment is based on the source-pathway-receptor approach. All potential sources of pollution associated with waste acceptance, storage and treatment for recovery activities have been assessed against the principal 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 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.

---

<sup>1</sup> [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), updated 31 August 2022

## 2. SITE SETTING

### 2.1. Location



**Figure 1** Aerial image of the site, showing the permit boundary in green

The site is located 90 metres ESE from the Green Tyre Village and 2.74 km NE of the A1184.

### 2.2. Humans and Property

The nearest Residential Dwelling (ID1) is approximately 90 metres ESE of the permit boundary shown on the Site Setting Plan (K163.1~20~042 & K163.1~20~043). The main Residential Areas within the buffer are Ducketts Lane Residential Area, Glendale Cottage, Springs Farm, Perry Green, Parsonage Lane Residential Area, Stansted Hill Residential Area, Much Hadham Residential Area, Warren Farm Residential Area, Grange House, Sacombs Ash, Blount's Farm and Blount's Lane.

### 2.3. Environmentally Sensitive Sites

Environmentally sensitive sites include; Sites of Special Scientific Interest (SSSI); Special Areas of Conservation (SAC); Special Protection Areas (SPA); RAMSAR sites; National Nature Reserves (NNR); Ancient Woodlands (AW); Local Nature Reserves (LNR); County Wildlife Sites (CWS); World Heritage Sites; Areas of Outstanding Natural Beauty (AONB); National Parks; and Biodiversity Action Plan (BAP) priority habitats.

There are no environmentally sensitive sites within 2km of the site with the exception of designated ancient woodlands located between 415m and 1589m west, south-west, east and north-east of the site.

#### 2.3.1. Designated Environmental Receptors

There are no designated sites within the 2 km Site Setting Plan. See Site Setting Plan (K163.1~20~043).

#### 2.3.2. Non-Statutory Designated Receptors

A series of non-statutory designated environmental sites are located within 2 km of the permit boundary and summarised in Table 1 below. The locations relative to the permit boundary are also shown on the Site Setting Plan (K163.1~20~043) with IDs that correspond to the Receptors Table (ERA2) in Section 3.2.

**Table 2** Non-Statutory Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
1	Traditional Orchard within Guy and Wright Commercial Area	150 m	S
2	Traditional Orchard within Springs Farm	255 m	NE
3	Traditional Orchards within Ducketts Lane Residential Area	345 m	ESE
4	Traditional Orchards within Perry Green Residential Area	1.0 km	SSW
5	Traditional Orchard near Windmill Way	1.15 km	NW
6	Traditional Orchard within Sacombs Ash	1.25 km	SE
7	Scheduled Monument within St Elizabeth's Centre	1.55 km	NNW
8	Group of Scheduled Monuments near Waltons Cottage	1.55 km	E
9	Traditional Orchards North of St Andrew's Church	1.55 km	WSW
10	Traditional Orchard in Mathams Wood	1.9 km	S

## **2.4. Geology**

### **2.4.1. Artificial Ground and Made Ground**

There are no records of artificial or made ground on site.

### **2.4.2. Superficial and Drift Geology**

There are records of superficial deposits within the site, described as Lowestoft Formation a chalky till with outwash sands and gravels, silts and clays, with a rock description of Diamicton.

The permeability of the superficial deposit is classified as Moderate to Low, with a mixed flow type.

### **2.4.3. Bedrock and Solid Geology**

The bedrock geology underlying the site eastern side of the site is described as London Clay Formation: Clay, Silt and Sand with a Rock age of Ypresian. The bedrock geology underlying the western side of the site is described as Thanet Formation and Lambeth Group (Undifferentiated) – Clay, Silt and Sand, with the rock age not defined.

The permeability of the bedrock geology is classified as Moderate to Very Low, with a mixed flow type.

## **2.5. Hydrogeology**

The Lowestoft Formation is classified as a Secondary Aquifer (Undifferentiated). However, it must be noted that during intrusive site investigations no superficial deposits have been observed onsite.

The bedrock beneath the site is categorised as Secondary A (Thanet & Lambeth Formation) and unproductive strata (London Clay Formation).

The site lies within a groundwater Source Protection Zone 3 which is associated with a public water abstraction.

The surrounding fields are served by a number of unnamed fields ditches the closest of which is located 150 m south-west. The site lies 917 m north-west of Fiddlers Brook and 1 km east of the River Ash. There is one surface water pond located in the east of the site.

## 2.6. Hydrology

**Table 3** Surface Water Features

DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
Unnamed inland rivers	2 m	SE
	91 m	SW
	136 m	SE
	208 m	E
Lake, lochs or reservoirs	9 m and 161 m	SE
River Ash	920 m	W
The Bourne	1.7 km	SSW

## 2.7. Flood Risk

### 2.7.1. Risk of Flooding from Rivers and Sea

The site is not located within a Flood zone 2 or 3.

### 2.7.2. Surface Water Flooding

The UK Government website to check flood risk states the south and central parts of the site are at risk of surface water flooding based on a 1 in 30-year flood event<sup>2</sup>.

## 2.8. Groundwater Flooding

Based on a 1 in 100-year return period, the risk of groundwater flooding onsite is considered to be low (Appendix B).

## 2.9. Air Quality

The site is included in a local authority with AQMAs. The site's design incorporates operational odour management features to prevent odour emissions from the site. Operational features are detailed within the K163.1~09~008.

## 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 principal risk factors to receptors within the site vicinity.

<sup>2</sup> [Check the long term flood risk for an area in England - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

### 3. METHODOLOGY

#### 3.1. Hazard Identification

A hazard is something with potential to cause harm to something else. Table ERA1 below identifies the principal hazard types which may be associated with the proposed activity; and indicates where hazards are identified and determined to be of significant potential risk to determine further assessment. Potential hazards from this activity are as follows:

#### ERA1 Identified Hazard Types

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
Odour	N/A	<ul style="list-style-type: none"> <li>Waste delivery and storage</li> <li>Lagoon storage &amp; digestate dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Impact on human health and the environment</li> </ul>	✓ ERA8
Point Source Emissions to Air	Engine exhaust	<ul style="list-style-type: none"> <li>Engines</li> </ul>	<ul style="list-style-type: none"> <li>Impact on human health and the environment</li> </ul>	✓ ERA 14
Fugitive Emissions to Air	Dust and Particulate Matter	<ul style="list-style-type: none"> <li>Waste delivery</li> <li>Digestate dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Accumulation of small sized, light materials</li> </ul>	✓ ERA 9
	Litter and Debris	<ul style="list-style-type: none"> <li>Waste delivery</li> <li>Digestate dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Loss of material during unloading and loading of waste or product</li> </ul>	✓ ERA 10
Fugitive Emissions – Pests	Pests, vermin, scavengers	<ul style="list-style-type: none"> <li>Waste storage</li> </ul>	<ul style="list-style-type: none"> <li>Biological nature of the waste</li> </ul>	✓ ERA 11
Fugitive Emissions – Mud and Debris	Mud & debris	<ul style="list-style-type: none"> <li>Waste delivery and unloading</li> <li>Digestate dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Loss of material during unloading of waste</li> </ul>	✓ ERA12
Fugitive Emissions – to Water	Contaminated runoff	<ul style="list-style-type: none"> <li>Runoff from stored waste</li> <li>Surface water runoff</li> <li>Fire waters</li> </ul>	<ul style="list-style-type: none"> <li>Runoff from stored waste</li> <li>Surface water runoff</li> <li>Fire waters</li> </ul>	✓ ERA 13
Accidents	Transferring substances	<ul style="list-style-type: none"> <li>Waste delivery</li> <li>Digestate dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Loss of waste from vehicle</li> <li>Spillage of digestate</li> </ul>	✓ ERA 15
	Plant or equipment failure	<ul style="list-style-type: none"> <li>Waste delivery</li> <li>Failure of abatement system</li> <li>Failure of process</li> <li>Failure of mains services</li> </ul>	<ul style="list-style-type: none"> <li>Spillages from vehicles bringing waste to site</li> <li>Emission of odour and particulate matter</li> <li>Process failure</li> <li>Explosion</li> </ul>	
	Flooding	<ul style="list-style-type: none"> <li>Onsite surface water</li> </ul>	<ul style="list-style-type: none"> <li>Surface water flooding disrupting operations</li> </ul>	
	Vandalism	<ul style="list-style-type: none"> <li>Unauthorised access</li> </ul>	<ul style="list-style-type: none"> <li>Damage to critical elements of process</li> </ul>	
	Fire	<ul style="list-style-type: none"> <li>Waste storage</li> <li>Process</li> </ul>	<ul style="list-style-type: none"> <li>Uncontrolled emissions of smoke and fire water</li> </ul>	
Noise and Vibration	N/A	<ul style="list-style-type: none"> <li>Delivery of waste</li> <li>Plant operation</li> <li>Digestate dispatch</li> </ul>	<ul style="list-style-type: none"> <li>Amenity impact, disturbance of wildlife in designated sites.</li> </ul>	✓ ERA 16

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
Climate Change	Extreme maximum & minimum temperature	<ul style="list-style-type: none"> <li>• Delivery and dispatch of material to and from the site.</li> <li>• Materials treatment and processing</li> <li>• Leaks from potentially flammable substances (oils, lubricants, grease and cleaning fluids) into Surface Water or groundwater.</li> <li>• Weather and Atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of amenities and property.</li> <li>• Risk of site flooding from onsite surface water from increased rainfall.</li> <li>• Fires due to extreme and increased temperatures.</li> <li>• Contamination of ground and surface water.</li> <li>• Drought causing lack of water for use to carry out site processes.</li> </ul>	ERA 17
	Extreme rainfall			
	Drier summers			
	River flow			
	Sea level rise			

### 3.2. Receptors

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

- Ancient woods
- 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
- Footpaths
- Roads and railways
- Groundwater beneath the site
- Homes, or groups of homes
- Playing fields and playgrounds
- Private drinking water supplies
- Regionally important geological sites
- Schools, hospitals, and other public buildings
- Water
- Conservation and habitats protected areas and areas of scientific interest

Sensitive receptors within 2 km of the permit boundary are shown on the Site Setting Plan (K163.1~20~043). The IDs on the Site Setting Plan correspond to the Receptors Table (ERA2) below.

ERA2 Receptors

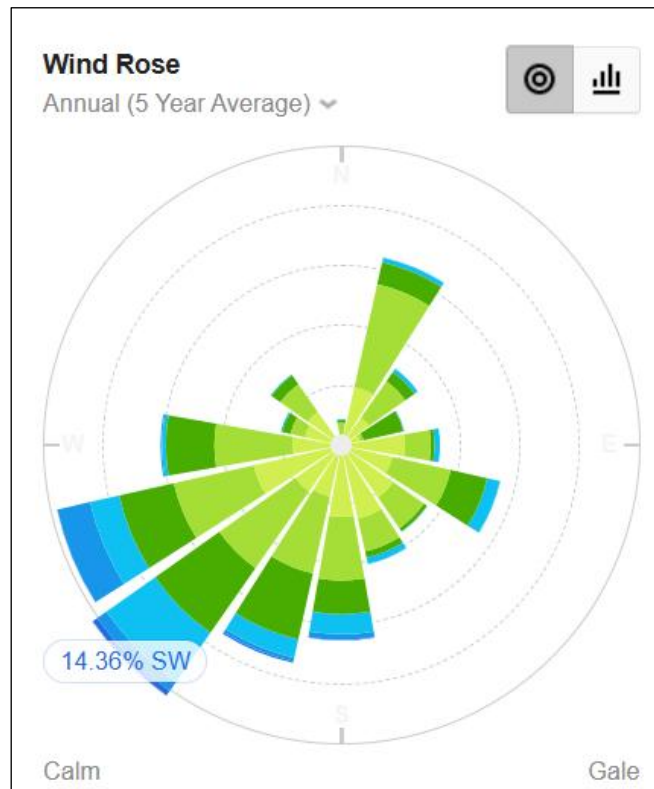
RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
HUMANS AND PROPERTY	-	Site Workers	On site	-
	-	Site Visitors	On site	-
	<b>INHABITANTS OF RESIDENTIAL PROPERTIES</b>			
	1	Ducketts Lane Residential Area	90 m	ESE
	2	Glendale Cottage	120 m	NW
	3	Springs Farm	125 m	NNE
	4	Perry Green	395 m	SSW
	5	Parsonage Lane Residential Area	440 m	NE
	6	Stansted Hill Residential Area	485 m	W
	7	Much Hadham Residential Area	640 m	W
	8	Warren Farm Residential Area	715 m	ENE
	9	Grange House	1.05 km	NNE
	10	Sacombs Ash	1.25 km	SE
	11	Blounts Farm	1.25 km	ESE
	12	Blounts Lane	1.7 km	SE
	<b>SENSITIVE PUBLIC USE</b>			
	1	The Mission Hall	85 m	S
	2	St Thomas Perry Green Church	715 m	SW
	3	Henry Moore Art Gallery	950 m	SSW
	4	Much Hadham Education Facility	1.05 km	WNW
	5	Much Hadham Village Hall	1.35 km	WNW
	6	St Andrew's Church	1.35 km	NW
	7	Much Hadham Forge Museum	1.4 km	WNW
	8	St Elizabeth's Centre	1.5 km	S
	<b>COMMERCIAL USE</b>			
	1	Guy and Wright Commercial Area	0 m	SW
	2	Wellbeing Barn	90 m	SSW
	3	The Prince of Wales Pub	140 m	SE
	4	Right Angle Creative	450 m	WSW
	5	Bit Solutions	630 m	S
	6	Warren Farm Commercial Area	870 m	ENE
	7	JH Electrical Instillations	890 m	SW
	8	The Hoops Inn	1.1 km	SSE
	9	Wilford Road Commercial Area	1.3 km	WSW
	10	Tower Hill Commercial Area	1.3 km	W
	11	The Bull Inn	1.4 km	NW
	12	The Cosmetic Acupuncture Clinic	1.6 km	SW
	13	South End Commercial Area	1.7 km	S
	<b>RECREATIONAL AREAS</b>			

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	1	Great Hadham Country Club	340m	NNE
	2	Adventure Bark	835m	NNE
	3	Malting Lane	855m	WSW
	4	Jobbers Wood	1.2 km	NNE
	5	Much Hadham Sports Association	1.3 km	WNW
<b>CRITICAL INFRASTRUCTURE</b>				
	1	Fire Station	1.3 km	W
<b>ROADS AND RAILWAYS</b>				
	-	B1004	315 m	N
<b>PUBLIC RIGHTS OF WAY</b>				
	1	Footpath between Danebridge Road and the Wellbeing barn	100 m	W
	2	Footpath between The Prince of Wales pub and SE Agricultural Fields	160 m	SE
	3	Footpath between B1004 and Green Tyre Residential Area	210 m	E
	4	Footpath between Danebridge Road and Oudle Lane	425 m	NW
	5	Footpath between Danebridge Road and Barryfield Residential Area	425 m	NW
	6	Footpath between Green Tyre and Blounts Farm	465 m	SE
	7	Footpath between the Hoops Inn and Green Tyre Residential Area	475 m	SE
	8	Footpath between Green Tyre and Sacombs Ash	500 m	SE
	9	Footpath between B1004 and Harvey's Wood	600 m	NNE
	10	Footpath between Parsonage Lane Residential Area and Warren Farm Residential Area	655 m	ENE
	11	Footpath between Stansted Hill and Mill Wood	730 m	SSW
	12	Footpath between Widford Road and Stansted Hill	735 m	SW
	13	Footpath between Bucklers Hall Farm and Sacombs Ash	810 m	SE
	14	Footpath between Oudle Lane and Hill Farm	810 m	WNW
	15	Footpath between Bucklers Hall Farm and South Residential Area	875 m	S
	16	Footpath between Stansted Hill and Mill Wood	880 m	WSW
	17	Footpath between Church Lane and Chalkdells Farm	885 m	WNW
	18	Footpath between Stansted Hill and Malting Lane	910 m	W
	19	Footpath between Warren Farm and Blounts Farm	945 m	ENE
	20	Footpath between Malting Lane and Tower Hill	1.0 km	W
	21	Footpath between Fiddlers Brook and Sacombs Ash	1.05 km	SE
	22	Footpath between Great Hadham Country club and Much Hadham Residential Area	1.1 km	N

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	23	Footpath between Malting Lane and Tower Hill	1.15 km	W
	24	Footpath between the Hoops Inn and Bourne Lane	1.15 km	S
	25	Footpath between Winding Hill and Church Lane	1.2 km	NW
	26	Footpath between Church Lane and Tower Hill	1.25 km	WNW
	27	Footpath within Blounts Farm	1.3 km	ESE
	28	Footpath between High Street and Kettle Green Lane	1.35 km	WNW
	29	Footpath between Winding Hill and Northern Agricultural Areas	1.45 km	NNW
	30	Footpath between South End and Warrens Farm	1.5 km	S
	31	Footpath between Kettle Green Lane and Stations Road	1.7 km	WSW
	32	Footpath between South End and Fiddlers Brook	1.75 km	S
	33	Footpath between B1004 and Eastern Agricultural Areas	1.8 km	ENE
	WATER	<b>SURFACE WATER</b>		
-		River Ash	920 m	W
-		The Bourne	1.7 km	SSW
<b>GROUNDWATER</b>				
1		Unproductive Superficial Deposit Aquifer	0 m	On Site
2		Secondary A Bedrock Deposit Aquifer	0 m	On Site
3	Unproductive Bedrock Deposit Aquifer	0 m	On Site	
ENVIRONMENTALLY SENSITIVE SITES	<b>DESIGNATED SITES</b>			
	-	There are no designated sites within the 2 km radius of the Site Setting plan.	-	-
	<b>NON-STATUTORY DESIGNATED SITES</b>			
	1	Traditional Orchard within Guy and Wright Commercial Area	150 m	S
	2	Traditional Orchard within Springs Farm	255 m	NE
	3	Traditional Orchards within Ducketts Lane Residential Area	345 m	ESE
	4	Traditional Orchards within Perry Green Residential Area	1.0 km	SSW
	5	Traditional Orchard near Windmill Way	1.15 km	NW
	6	Traditional Orchard within Sacombs Ash	1.25 km	SE
	7	Scheduled Monument within St Elizabeth's Centre	1.55 km	NNW
	8	Group of Scheduled Monuments near Waltons Cottage	1.55 km	E
9	Traditional Orchards North of St Andrew's Church	1.55 km	WSW	
10	Traditional Orchard in Mathams Wood	1.9 km	S	
HERITAGE SITES	<b>LISTED BUILDINGS, PARKS &amp; SCHEDULED MONUMNETS</b>			
	1	Grade 2 listed building- Barn at Grudd's Farmhouse	275 m	S

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	2	Group of grade 2 listed buildings in Green Tyre	285 m	ESE
	3	Grade 2 listed building- Dane Bridge House	515 m	NNW
	4	Grade 2 listed building- Dane Bridge House	515 m	N
	5	Grade 2 listed building- Church of St Thomas	730 m	SW
	6	Group of grade 2 listed buildings near Stansted Hill	780 m	WSW
	7	Grade 2 listed building= Elmtree 200 metres Southwest of Warren Cottage	840 m	ENE
	8	Group of grade 2 listed buildings near the River Ash	1.1 km	NW
	9	Grade 2 listed building- Home Stalls	1.1 km	NE
	10	Group of grade 2 listed buildings in Perry Green	1.15 km	SSW
	11	Group of grade 2 listed buildings along Tower Hill	1.3 km	WNW
	12	Group of grade 2 listed buildings along Widford Road (Boundary Wall at Yewtree Farm- grade 1)	1.35 km	WSW
	13	Group of grade 2 listed buildings near St Andrew's Church	1.4 km	NW
	14	Group of grade 2 listed buildings near Pathway Couriers	1.4 km	WSW
	15	Group of grade 2 listed buildings surrounding Much Hadham Village Hall (Much Hadham Hall- grade 1)	1.45 km	NW
	16	Group of grade 2 listed buildings along High Street	1.5 km	NW
	17	Group of grade 2 listed buildings near Parsonage Lane	1.5 km	ESE
	18	Group of grade 2 listed buildings near Blount's Lane	1.6 km	SE
	19	Group of grade 2 listed buildings surrounding Much Hadham	1.65 km	NW
	20	Group of grade 2 listed buildings near Kettle Green Lane (Moor Place- grade 1)	1.85 km	WNW
	21	Group of grade 2 listed buildings near Bourne Lane	2.0 km	SSW

### 3.3. Prevailing Wind Direction



**Figure 2** Willyweather wind rose. Annual 5-year average, [2020-2025] ([willyweather.co.uk](http://willyweather.co.uk)).

The closest observing station where wind statistic data is available is at Much Hadham, approximately 640 metres W of the permit boundary. Figure 2 presents the wind statistics on a wind rose as an annual average using data from the previous 5 years (2020-2025). The wind rose indicates that the sensitive receptors located towards the SW of the site are potentially at greatest risk from hazards transmitted through the air.

### 3.4. Pathways

The pathway is the means by which the hazard reaches the receptor and forms the link between the two. For example, a dust hazard may reach a receptor by travelling through air, with the air therefore being the pathway.

The source-pathway-receptor link must be present for there to be a risk. Management measures applied at the site act to minimise the overall risk by impeding or removing the pathway.

**ERA3 Pathways**

RECEPTOR	HAZARD	PATHWAY
<b>Humans and Property</b>	Odour	Transmitted through the air
	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Birds, Vermin & Insects	Physical travel
	Fire	Physical contact and spread
<b>Groundwater</b>	Contaminated runoff	Infiltration through the ground
<b>Surface Water</b>	Contaminated runoff	Direct discharge from site
<b>Environmentally Sensitive Sites</b>	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Fire	Physical contact and spread
<b>Atmosphere</b>	Dust and Particulate Matter	Transmitted through the air

**3.5. Risk**

Assessment of risk is based on the probability of receptor exposure to the identified hazards and the consequences of such exposure. The initial assessment of risk is made assuming no risk management practices are applied.

A matrix is used to determine overall risk and uses the following definitions:

**ERA4 Probability of Exposure**

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

**ERA5 Consequences of Exposure**

CONSEQUENCES OF EXPOSURE
<b>HIGH</b> – <i>the consequences are severe</i> : sufficient evidence that short or long term exposure may result in serious damage.
<b>MEDIUM</b> – <i>consequences are significant</i> ; sufficient evidence that exposure to hazard may result in damage that is not severe in nature and reversible once exposure ceases (e.g. irritant).
<b>LOW</b> – <i>consequences are minor</i> ; damage not apparent though reversible adverse changes may occur.

CONSEQUENCES OF EXPOSURE
<b>VERY LOW</b> – <i>consequences are negligible</i> ; no evidence of adverse changes following exposure.

Comparison between probability and consequence provides the overall risk which is reached as follows:

**ERA6** Assessing Overall Risk

		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

**3.6. Risk Management**

Risk management practices for the key hazards identified above are summarised in Section 4 of this ERA. The information presented below is supported by various documents and this is clearly indicated within each table presented. In addition, risk management measures have been developed with reference to relevant guidance documents, the following being of particular note:

- Environmental Management – Guidance: Risk assessment for your environmental permit<sup>3</sup>
- Guidance: Noise and vibration management: environmental permits<sup>4</sup>
- Guidance: Control and monitor emissions for your environmental permit<sup>5</sup>
- Sector Guidance Note S5.06: Recovery and disposal of hazardous and non-hazardous waste.<sup>6</sup>

This risk assessment details the key management measures for identified risks.

---

<sup>3</sup> [Risk assessments for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit), Updated 21 November 2023

<sup>4</sup> [Noise and vibration management: environmental permits - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/noise-and-vibration-management-environmental-permits), Updated 31 January 2022

<sup>5</sup> [Control and monitor emissions for your environmental permit - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit), Updated 24 November 2022

<sup>6</sup> [Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/sector-guidance-note-s506-recovery-and-disposal-of-hazardous-and-non-hazardous-waste), Updated 10 October 2018

### **3.7. Residual Risk**

The application of management practice results in a residual risk which is detailed in Section 4 of this document.

## 4. RISK ASSESSMENT

The key hazards identified for the activity have been subject to a risk assessment against management practice. Each hazard is assessed in a separate table (Appendix A). The information presented is, as appropriate, supported by other documents and these are referenced.

Many of the hazards identified in the tables located in Appendix A relate to 'Environmental Risk Points (ERP)' identified throughout the processes:

### ERA7 Environmental Risk Points (ERP)

REFERENCE	PROCESS
ERP1	Reception (delivery and storage of waste in the reception area)
ERP2	Anaerobic digestion
ERP3	Biogas combustion
ERP4	Lagoon storage (storage of digestate in lagoons)
ERP5	Dispatch (dispatch of final digestate for use as a nutrient/soil improver)

## 5. APPENDICES

This page is intentionally left blank

## **Appendix A**

Environmental Risk Assessment Tables

(26/01/2026)

## **Appendix B**

Groundsure Report (GS-Z7U-678-PZ4-6NA)

(02/12/2025)



*Helping clients prosper through compliance*

Suite 11 Manor Mews, Bridge Street, St Ives, PE27 5UW  
01480 462 232 | [www.wiserenvironment.co.uk](http://www.wiserenvironment.co.uk) | [info@wisergroup.co.uk](mailto:info@wisergroup.co.uk)

