Environmental Risk Assessment

H Weston & Sons Ltd

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Helping clients prosper through compliance

SITE DETAILS

H Weston and Sons Ltd

The Bounds

Much Marcle

Ledbury

HR8 2NQ

OPERATOR DETAILS

H Weston and Sons Ltd

The Bounds

Much Marcle

Ledbury

HR8 2NQ

PERMIT REFERENCE

EPR/QP3420LA/P001

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K499.1~20~001	Permit Boundary Plan	28/08/2025
K499.1~20~002	Site Setting Plan (2 km)	29/08/2025

APPENDICES

REFERENCE	TITLE	DATE
Appendix A	ERA Tables	28/08/2025
Appendix B	Groundsure Report (GS-1XQ-4QM-XSD-B8F)	04/08/2025

1. INTRODUCTION

This document is the Environmental Risk Assessment (ERA) that accompanies the application for an EPR Installation Permit at H Weston & Sons Ltd, The Bounds Much Marcle, Ledbury HR8 2NQ. The site is located at National Grid Reference SO 64858 33077, Easting 364858, Northing 233077.

The application has been prepared in line with Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016 (as amended) for the Cider Manufacturing facility ('The Bounds') operated by H Weston and Sons ltd.

This application seeks to permit:

EPR Food and Drink Installation, 6.8 Part A (1), D, (ii) *Treatment and Processing, other than exclusively packaging, of the following raw materials, whether previously processed or unprocessed, intended for the production of food for feed (where the weight of the finished product excludes packaging) of only vegetable raw materials with a finished product production capacity greater than 300 tonnes per day,* for the pressing of apples and associated fermentation and maturation of base cider (plus associated DAAs). This also includes the discharge of 400m^3/day of treated effluent from the site Treatment Plant.

EPR Waste Treatment activity, 5.4, Part A1 (a) (i), Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving biological treatment and physico-chemical treatment, Wastewater Treatment Plant (WWTP).

The application has been prepared by Wiser Environment Limited on behalf of the applicant H Weston & Sons Ltd. The ERA has been produced in line with Environment Agency guidance, 'Risk assessments for your environmental permit'[1].

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 apple reception, pressing, fermentation, maturation, wastewater treatment and other Directly Associated Activities ('DAAs) have been assessed against the principal receptor types identified within the site's vicinity.

[1] Risk assessments for your environmental permit - GOV.UK (www.gov.uk), updated 3rd January 2025

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.

2. SITE SETTING

2.1. Location

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

The site is located 20 m SW from Mill Cottage and 2 m from Watery Lane. A few residential and commercial areas surround the site. The remaining areas surrounding the site boundary is mainly agricultural areas and some surface water features.

2.2. Humans and Property

The nearest human receptor (ID1) is approximately 10 m & NE of the permit boundary shown on the Site Setting Plan (K499.1~20~002). The main residential areas closest to the site and within the buffer are Mill Cottage (20 m SW), The Residential Areas near How Caple (65 m SSE, 170 m SE, 230 m ESE), Watery Lane (175 m SE) and Upper Venning (125 m SE).

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 is one site of Special Scientific Interest, Hall Wood SSSI located 1.90 km E of the site.

2.3.1. Designated Environmental Receptors

Table 1 Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
1	Hall Woodland (SSSI)	1.90 km	E

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 (K499.1~20~002) with IDs that correspond to the Receptors Table (ERA2) in Section 3.2. A source protection zone (Merged 1, 2 & 3) is located on site.

Table 2 Non-Statutory Designated Sites

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
1	Traditional Orchard near Mill Cottage	60 m	ESE
2	Traditional Orchard near Watery Lane	120 m	N
3	Traditional Orchard near Hill House	130 m	WSW
4	Traditional Orchard near Orchard Farm	325 m	NW
5	Traditional Orchard near Caerswall Farm	740 m	WNW
6	Traditional Orchard near the A449	905 m	ENE
7	Traditional Orchard near Upper Nuttall Cottage	1.0 km	WSW
8	Traditional Orchard beside Huntley's Farm	1.05 km	NE
9	Traditional Orchard near Newhouse Farm	1.15 km	SW
10	Traditional Orchard near Chandos Manor	1.15 km	NNW
11	Wood Pasture and Parkland near Homme House Park	1.20 km	SSE
12	Wood Pasture and Parkland near Hill Farm Dr	1.30 km	ENE
13	Traditional Orchard near Great Moor court Farm	1.40 km	SE
14	Traditional Orchard near Lower Redding End	1.55 km	NNE
15	Traditional Orchard near Keepers Lodge	1.60 km	SSE

ID	DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
16	Traditional Orchard near Lyne Down	2.0 km	S
17	Traditional Orchard near Foxhalls	1.90 km	WSW
18	Traditional Orchard Near Rushall	1.95 km	NNW

2.4. Geology

2.4.1. Artificial Ground and Made Ground

Made ground undivided of artificial deposits can be found on site (LEX Code MGR-ARTDP). The permeability of the artificial ground onsite is very high to low and of a mixed flow type.

2.4.2. Superficial and Drift Geology

Records within 500 m of the site shows Alluvium superficial geological deposits (LEX Code ALV-XCZSV) located 106m N. These rocks are described as clay, silt, sand and gravel.

2.4.3. Bedrock and Solid Geology

There are 7 records of bedrock geology within 500 m of the site proximity. These include;

Downton Castle Sandstone Formation – Sandstone (LEX Code DCS-SDST) found onsite, 44 m N, 135 m N, and 180 m SE. Upper Ludlow Shales Group – Siltstone of Ludfordian age (LEX Code ULUS-SLST) found on site and 293 m NW. Raglan Mudstone Formation - Siltstone and Mudstone, Interbedded (LEX Code RG-SIMD) found on site.

The bedrock permeability onsite and 7m N of the site is moderate to low and of a fractured flow type.

Records within 500 m of the site show that there are 4 bedrock faults, described as fault, inferred, displacement unknown located 1m n, 103 m N, 180 m N and 302 m N of the site respectively.

2.5. Hydrogeology

A secondary A superficial aquifer is located 106m N of the site. Described as a permeable layer 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. These are generally aquifers formerly classified as minor aquifers.

There are source protection zones within the site: Source Protection Zone 3 (total catchment) and Source Protection Zone 2 (outer catchment).

There are 6 records of bedrock aquifers within 500 m of the site.

Two secondary A aquifers are found on site, and one secondary A aquifer is found 187 m S of the site. Secondary B aquifers can be found on site, 173m S and 247 m S of the site.

Four boreholes are located 250 m from the site. These include Westons Cider Factory, Much Marcle, 28m N (NGR 365130 233490), Westons Cider, Much Marcle, 46m W (NGR 365100 233300), Westons Cider, the Cricket Pitch, Much Marcle, 49m N (NGR 365100 233500) and Westons Cider, Factory Much Marcle, 100m N (NGR 365180 233560).

2.6. Hydrology

There are 23 surface water features located within 250 m of the site. There is one Water Framework Directive (WFD) surface water body catchment (Preston Brook - source to confluence of River Leadon, water body ID GB109054039590) located on site. The operational catchment for this surface water body is Leadon, and the management catchment is Severn Vale.

Records identified one WFD surface water body (Preston Brook - source to confluence of River Leadon) located 269m E of the site. The overall WFD rating and ecological rating of this river is poor and a failed chemical rating.

A WFD groundwater body (Severn Vale - Secondary Combined) is also found on site with water body ID (GB40902G204900) and good overall rating.

Table 3 Surface Water Features

DESCRIPTION	NEAREST LOCATION FROM SITE (APPROX.)	DIRECTION FROM SITE
Wetland near Watery Lane	Onsite	Onsite
Pond beside Traditional Orchard	Onsite	Onsite
Pond near the A449	380 m	ESE
Pond near Caerswall Farm	640 m	WNW
Pond near Bodenham Bank Cottage	830 m	SSE
Ponds at Homme House Park	1.20 km	SSE
Pond at Dean's Place	1.95 km	SSW
Ponds near Hellens	1.10 km	E

2.7. Flood Risk

2.7.1. Risk of Flooding from Rivers and Sea

According to the UK government website to check for flood risk, the postcode for the site does not exist. The nearest postcode to the site (The Slip Tavern, Much Marcle, Ledbury, HR8 2NG, some 90 m east of the site) was used to assess the risk of flooding from Rivers and Seas. The

area has a very low annual chance of flooding from Rivers and the Sea both now and for the period 2036 and 2069.

2.7.2. Surface Water Flooding

The UK Government website to check flood risk states that there is a high risk of surface water flooding at the site[2]. There is a high annual chance of flooding between 2040 and 2060.

The highest risk of surface water flooding on site is 1 in 30 years, 0.1m - 0.3m. The highest risk of flooding within 50m of the site is 1 in 30 years, 0.3m - 1.0m. Flooding from groundwater is unlikely in this area. The highest risk on site is negligible.

2.8. Air Quality

The site is not situated within a defined Air Quality Management Area or Zone

2.9. 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.

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	Odour	• Production process (Apple pressing, Fermentation, maturation, blending and Racking) • Waste Water Treatment Plant (WWTP) • PVRVs on bulk tanks when filling/ emptying.	• Fugitive emissions of odour relating to processing activities on site. • Emission of volatile organic compounds, mainly ethanol and esters, along with carbon dioxide.	✓ ERA 8

[2] Check the long term flood risk for an area in England - GOV.UK (www.gov.uk)

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
			• Yeast by-products can emit fruity, sour, or alcohol-like odours • Odours arising decomposing organic matter such as from food and apple skins, pulp, and juice residues. • Mild odours associated with maturing cider	
Point Source Emissions to Air	NOx, SO2, CO, CO2, Particulates, VOCs, F-gas.	• Boiler • CHP (Anaerobic Digestion) • Emergency relief valves (CO2, steam, compressed air) • PVRVs on base cider tanks • F-Gas	• Atmospheric pollution due to release of harmful gases to air • Inhalation of particulate matter	✓ ERA 8
Fugitive Emissions to Air	Dust and Particulate Matter	• Dust from vehicle movement	• Inhalation of dust particles • Derogation of buildings and amenities	✓ ERA 8
	Litter and Debris	• Twigs, leaves, any other organic matter	• Litter and filth • Derogation of environment and amenities	✓ ERA 9
Fugitive Emissions – Pests	Pests, vermin, scavengers	• Food and apple waste • Raw materials.	• Presence of scavengers and pests on site	✓ ERA 10
Fugitive Emissions – and Debris	Debris	• Twigs, leaves, sludge, any other organic matter	• Litter • Presence of pests and animals on site	✓ ERA 11
Fugitive Emissions – to Water or land.	Contaminated runoff	• Spillage from oils cleaning chemicals, leaking processing tanks	• Pollution of ground and surface water bodies • Contamination of land • Contaminated drinking water	✓ ERA 12
Point Source Emissions	Treated Effluent from WWTP	Out of compliance effluents discharged to the brook	• Pollution of surface water.	Assessed separately in Section 05 – H1 assessment
Accidents	Transferring substances	• Moving extracted materials into trailers • Filtration, blending and pasteurisation and bottling	• Liquid spills and waste litter	✓ ERA 13
	Plant or equipment failure	• Failure of machines, mashing and pressing equipment. • Integrity failure of bulk tanks storing base cider or chemicals for Clean in Place.	• Injury to machine and plant operators • Liquid spills and waste litter	
	Flooding	• Surface water flooding • Tank leakage or catastrophic failure.	• Pollution of ground and surface water bodies • Contaminated drinking water	

PRINCIPAL HAZARD TYPE	SUB-HAZARD TYPE	POTENTIAL SOURCE	RISK	REQUIRES FURTHER ASSESSMENT
	Vandalism	• Theft • Site visitors & staff	• Loss of property and amenity	
	Fire	• Gas oil stored in tanks • Electrical equipment • Transformers	• Loss of property and amenities from fire outbreak	
Noise and Vibration	Noise	• Internal processes (Blending, Mashing, material transfer) • Sound from diesel generator • Sounds from vehicle movement in and out of site	• Disturbance and noise on site and neighbouring areas • Noise disturbance to environmentally sensitive sites	✓ ERA 14
Climate Change	Extreme maximum & minimum temperature	• Flooding from Rivers and Seas • Surface water flooding • Increasing temperature	• Damage to property and amenities from flooding • Drought • Fires due to high temperatures • Equipment failure due to temperature changes	✓ ERA 15
	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 (K499.1~20~002). 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	-
		INHABITANTS OF RESIDENTIAL PROPERTIES		
	1	Mill Cottage	20 m	SW
	2	Area near How Caple	65 m	SSE
	3	Upper Venning	125 m	SE
	4	Residential Area near How Caple	170 m	SE
	5	Watery Lane	175 m	SE
	6	Residential Area near How Caple	230 m	ESE
	7	The Row - Holiday Cottage	400 m	SW
	8	Much Marcle	760 m	ESE
	9	Caerswall Farm	775 m	NW
	10	Hill Farm Dr	790 m	NE
	11	Hill Farm	880 m	ENE
	12	Residential Area Near A449	1.05 km	NE
	13	Bodenham Farm	1.10 km	SSE
	14	Upper Nuttall COttage	1.15 km	WSW
	15	Huntley's Farm	1.20 km	NNE
	16	Homme House	1.30 km	SSE
	17	Keepers Lodge	1.45 km	SE
	18	Firs Farm	1.60 km	W
	19	Cotton Orchard	1.80 km	NNW
	20	Dean's Place	1.85 km	SW
	21	Gwynns Hill	1.90 km	SSW
		SENSITIVE PUBLIC USE		
	1	Education Facility	585 m	ESE
	2	The Royal Oaks	1.30 km	NE
		COMMERCIAL USE		
	1	H Weston & Sons	20 m	ESE
	2	The Scrumpy House	20 m	SE
	3	Post Office next to A449	90 m	E
	4	Adrian Hope Tree Services	960 m	NE
	5	Shepherds Rest	990 m	WSW
	6	Lyne Doen Organics Limited	1.60 km	NE
	7	Ridge Hill Broadcasting Tower	1.70 km	W
	8	Foxhalls	1.95 km	WSW
	9	Graham Baker Motor Vehicles	1.95 km	NNW
		RECREATIONAL AREAS		
	1	Cwtch Cabins & Camping	2.0 km	ESE

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
		AGRICULTURAL		
	1	Westons Cider Orchard	175 m	WSW
	2	Watery Ln	240 m	ESE
	3	South Bank	335 m	NNE
	4	Orchard Farm	395 m	NNW
	5	Ryemeadows Cottage	710 m	NE
	6	Caerswall Farm	805 m	NW
	7	Hill Barn Farm Cottage	970 m	SSW
	8	Marcle HIll	980 m	WSW
	9	Asterleigh	995 m	NNW
	10	Woltons Mill	1.05 km	NW
	11	Nuttal	1.10 km	W
	12	Home House Park	1.10 km	SSE
	13	Upper Redding End	1.15 km	NE
	14	Great Moorcourt Farm	1.30 km	ESE
	15	The Hill Farm	1.35 km	ENE
	16	Lyne Down	1.40 km	SSE
	17	Gregg's Pit	1.40 km	SE
	18	Huntley's Farm	1.55 km	NNE
	19	Firs Farm	1.60 km	W
	20	Rushall	1.65 km	NNW
	21	Lower Redding End	1.70 km	NE
	22	Foxhalls Wood	1.70 km	WSW
	23	Veldt House Cottage	1.80 km	NE
	24	Webb's Grove	1.90 km	W
	25	Gwynns Hill	1.90 km	N
		CRITICAL INFRASTRUCTURE		
		ROADS AND RAILWAYS		
	-	Watery Lane	2m	NNW
	-	How Caple	15 m	S
	-	Lyne Down	265 m	WSW
	-	Lower Waltons	285 m	WSW
	-	B4042	550 m	ESE
	-	A449	410 m	ESE
		PUBLIC RIGHTS OF WAY		
	-	Path from How Caple to Bodenham Farm	100 m	SE
	-	Path towards A449	215 m	SE
	-	Path from Much Marcle to Upper Nuttal Cottage	495 m	S
	-	Path from Orcahard Farm to Upper Nuttal Cottage	730 m	WNW

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	-	Path from Watery Lane to Ryemeadows Cottage	730 m	NNE
	-	Farm Track from Hill Farm Dr to Hellens	780 m	E
WATER		**SURFACE WATER**		
	-	Wetland near Watery Lane	Onsite	Onsite
	-	Pond beside Traditional Orchard	Onsite	Onsite
	-	Pond near the A449	380 m	ESE
	-	Pond near Caerswall Farm	640 m	WNW
	-	Pond near Bodenham Bank Cottage	830 m	SSE
	-	Ponds at Homme House Park	1.20 km	SSE
	-	Pond at Dean's Place	1.95 km	SSW
	-	Ponds near Hellens	1.10 km	E
		GROUNDWATER		
	-	Superficial: Secondary A aquifer – Source Protection Zone	106 m	N
	-	Bedrock: Secondary A & B aquifer – Source Protection Zone [1,2 & 3 (Inner Catchment, Total Catchment & Outer Catchment)]	Underlying site	Onsite
ENVIRONM-ENTALLY SENSITIVE SITES		**DESIGNATED SITES**		
	1	Hall Woodland (SSSI)	1.90 km	E
		NON-STATUTORY DESIGNATED SITES		
	1	Traditional Orchard near Mill Cottage	60 m	ESE
	2	Traditional Orchard near Watery Lane	120 m	N
	3	Traditional Orchard near Hill House	130 m	WSW
	4	Traditional Orchard near Orchard Farm	325 m	NW
	5	Traditional Orchard near Caerswall Farm	740 m	WNW
	6	Traditional Orchard near the A449	905 m	ENE
	7	Traditional Orchard near Upper Nuttall Cottage	1.0 km	WSW
	8	Traditional Orchard beside Huntley's Farm	1.05 km	NE
	9	Traditional Orchard near Newhouse Farm	1.15 km	SW
	10	Traditional Orchard near Chandos Manor	1.15 km	NNW
	11	Wood Pasture and Parkland near Homme House Park	1.20 km	SSE
	12	Wood Pasture and Parkland near Hill Farm Dr	1.30 km	ENE
	13	Traditional Orchard near Great Moorcourt Farm	1.40 km	SE
	14	Traditional Orchard near Lower Redding End	1.55 km	NNE
	15	Traditional Orchard near Keepers Lodge	1.60 km	SSE
	16	Traditional Orchard near Lyne Down	2.0 km	S
	17	Traditional Orchard near Foxhalls	1.90 km	WSW
	18	Traditional Orchard Near Rushall	1.95 km	NNW
HERITAGE SITES		**LISTED BUILDINGS, PARKS & SCHEDULED MONUMNETS**		
	1	2 Grade II Listed Buildings	40 m	SSE

RECEPTOR TYPE	ID	DESCRIPTION	DISTANCE	DIRECTION
	2	4 Grade II Listed buildings	550 m	ESE
	3	1Grade II Listed Building	675 m	SE
	4	1 Grade II Listed Building	775 m	NW
	5	1 Grade I* Listed building & 19 Grade II Listed Buildings & 1 Grade I Listed Buildings	810 m	ESE
	6	3 Grade II Listed Buildings	825 m	NW
	7	2 Grade II Listed Buildings	865 m	NE
	8	5 Grade II buildings & 2 Grade II* Listed Buildings	940 m	E
	9	1 Grade II Listed Building	945 m	NNE
	10	4 Grade II Listed Buildings	1.10 km	SE
	11	1 Grade II Listed Building	1.15 km	ENE
	12	1 Grade II* Listed Building	1.20 km	NNE
	13	1 Grade II*, 1Grade I & 6 Grade II listed Buildings	1.25 km	SSE
	14	8 Grade II Listed Buildings	1.30 km	ESE
	15	1 Grade II* Listed Building & 3 Grade II Listed Buildings	1.55 km	NNW
	16	3 Grade II Listed Buildings	1.75 km	SSW
	17	2 Grade II Listed Buildings	1.90 km	SW

3.3. Prevailing Wind Direction

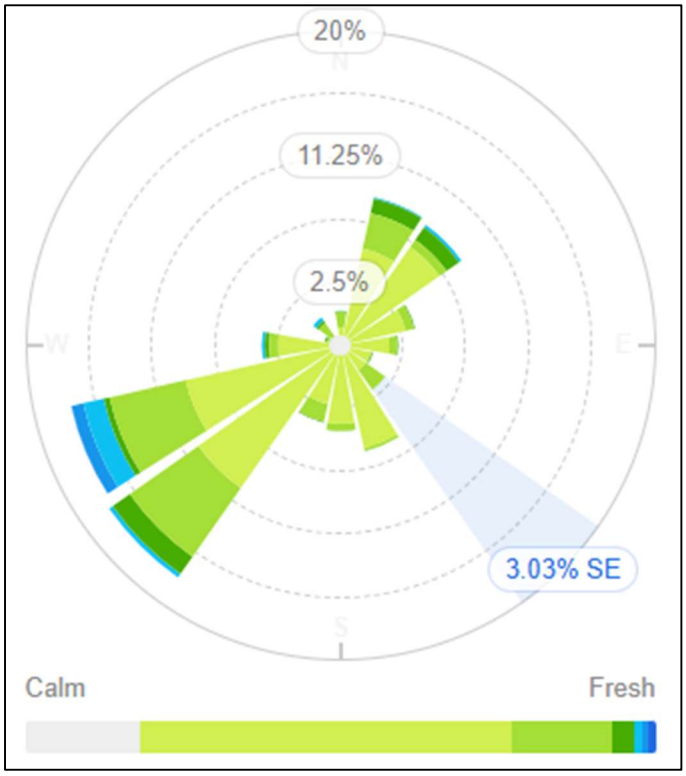

Figure 2 White Cross wind rose. Annual 5-year average, [2020 - 2025] *(willyweather.co.uk)*.

The closest observing station where wind statistic data is available is at White Cross, Hereford approximately 22km from the site. 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 Northeast 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
Humans and Property	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
Groundwater	Contaminated runoff, Spillage	Infiltration through the ground
Surface Water	Contaminated runoff, Out of consent treated effluent	Direct discharge from site
Environmentally Sensitive Sites	Dust and Particulate Matter	Transmitted through the air
	Noise	Transmitted through the air
	Fire	Physical contact and spread
	Releases from Combustion Activities (boilers, etc)	Transmitted through the air
Atmosphere	Dust and Particulate Matter	Transmitted through the air
	Releases from Combustion Activities (boilers, etc). Emergency Releases through Bulk tank PVRVs/ emergency release valves.	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 (LIKLIEHHOD)
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.

ERA5 Consequences 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.

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[3]
- Guidance: Noise and vibration management: environmental permits[4]
- Guidance: Control and monitor emissions for your environmental permit[5]

[3] Risk assessments for your environmental permit - GOV.UK (www.gov.uk), Updated 3 January 2025
[4] Noise and vibration management: environmental permits - GOV.UK (www.gov.uk), Updated 31 January 2022
[5] Control and monitor emissions for your environmental permit - GOV.UK (www.gov.uk), Updated 11 June 2025

- Sector Guidance Note S5.06: Recovery and disposal of hazardous and non-hazardous waste.[6]

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

3.7. Residual Risk

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

[6] Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste - GOV.UK (www.gov.uk), Updated 10 October 2018

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	Raw Material receipt (apples, chemicals, other raw materials for production requirements)
ERP2	Storage of Raw materials (other than apples) chemicals and base cider
ERP3	Production processes & DAAs (Pressing, fermentation, maturation, downstream activities and ancillary activities to support production process)
ERP4	Production Waste Dispatch

5. APPENDICES

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Appendix A

Environmental Risk Assessment Tables

(28/08/2025)

Appendix B

Groundsure Report (GS-1XQ-4QM-XSD-B8F)

(04/08/2025)

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