



**ENVIRONMENTAL PERMIT APPLICATION –
ENVIRONMENTAL AND ACCIDENT RISK ASSESSMENT**

**HUSBANDS BOSWORTH QUARRY,
WELFORD ROAD,
HUSBANDS BOSWORTH,
LEICESTERSHIRE
LE17 6JH**

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**Project Quality Assurance
Information Sheet**

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1.0 INTRODUCTION

1.1 Scope

1.1.1 This document presents an assessment of the risks to the environment and amenity posed by the operation of an inert landfill within the Husbands Bosworth Quarry, Leicestershire.

1.1.2 This risk assessment has been undertaken in accordance with the Environment Agency (EA) Guidance on 'Risk Assessments for your Environmental Permit'; published 1st February 2016 (updated 25th March 2021).

1.2 Site Setting

Site Description

1.2.1 This Environmental and Accident Risk Assessment (EARA) relates to the operation of an inert landfill activity to support the restoration of Husbands Bosworth Quarry, Welford Road, Husbands Bosworth, Leicestershire, LE17 6JH. The site is centred on National Grid Reference (NGR): SP 65056 83878. The site is within the local authority of Harborough District Council. The site location is shown in **Drawing No. MG1001/14/01**, additionally the proposed site boundaries are shown in **Drawing No. MG1001/14/02**.

1.2.2 The site lies approximately 230m southeast of the village of Husbands Bosworth, Leicestershire. Husbands Bosworth Quarry falls within the bounds of Bosworth Estate which covers an area of c. 147 ha. The Husbands Bosworth Quarry covers an area of approximately 50 ha, of which the landfill footprint will occupy c. 44.8ha. Access to the site is via Welford Road (A5199) located to the west of the quarry which joins Station Road (A4303) and the A1.

1.2.3 Agricultural and residential land use dominate the surrounding area. Agricultural land occupies large areas of land to the east, south and west of Husbands Bosworth Quarry, with a smaller area of agricultural land situated to the north. The village of Husbands Bosworth lies northwest of the site. Coombe Hill Site of Special Scientific Interest (SSSI) (designated for its chalk grassland and acid heathland) and Bosworth Mill Meadow Site of Special Scientific Interest (SSSI) (designated for its biodiversity and rich plant life) are located c.2.5km to the east and c.1.8km southwest of the site respectively. North Kilworth Local Nature Reserve (LNR) is situated to the c. 2.5 km west of the site and Bosworth Broad Lane Pond Local Wildlife Site (LWS) lies c. 810m northwest of the site. A public footpath / bridleway runs along the south-western boundary of the quarry void.

1.2.4 The site lies within a Nitrate Vulnerable Zone (NVZ) which are designated by DEFRA and the Environment Agency for Surface and Groundwater as being at risk from agricultural nitrate pollution. The designations are made in accordance with the Nitrate Pollution Prevention Regulations 2015.

1.2.5 The site does not lie within a Groundwater Source Protection Zone (SPZ). Additionally, the site is not located within an Air Quality Management Area (AQMA). The closest AQMA to the site boundary lies approximately 12km to the south-west.

1.2.6 There are no Ramsar sites, National Nature Reserves (NNR), Special Areas of Conservation (SAC) or Special Protection Areas (SPA) located within 2km of the site.

1.2.7 **Table EARA1** summarises the potential sensitive receptors that have been identified through a desk study of the locality and the corresponding minimum distance from the proposed permit boundary of the Husbands Bosworth Quarry Landfill site. The locations of the receptors are shown in **Drawing No.: MG1001/14/10**.

Table EARA1: Identified Potential Sensitive Receptors within 1km of Husbands Bosworth Quarry

ID	Receptor Name	Type of Receptor	Approximate nearest distance from the operational boundary	Direction from proposed landfill footprint
R1	River Welland	Water Body	Adjacent	East
R2	Welland Waste Management	Commercial / Industrial	580m	Northeast
R3	Peeble Hall	Commercial / Industrial	1000m	Northeast
R4	Woodsite Lodge	Residential	760m	Northeast
R5	Dene Lodge	Residential	910m	Northeast
R6	Theddingworth Road (A4304)	Public Highway	290m	North
R7	Welford Road (A5199)	Public Highway	380m	West
R8	Bosworth Hall (and associated grounds)	Residential / Commercial	Hall: 380m Grounds: Adjacent	North
R9	Sewage Treatment Works	Commercial / Industrial	590m	Northwest
R10	Husbands Bosworth Village	Residential	210m	Northwest
R11	Dairy Farm Day Nursery	Educational	415m	Northwest
R12	Hunters Lodge Care Home	Residential	690m	Northwest
R13	Husbands Bosworth Church of England Primary School	Educational	450m	Northwest
R14	Husbands Bosworth Children's Park & Dog Walking Field	Recreational	510m	West
R15	Husbands Bosworth Medical Centre	Commercial / Industrial	350m	West
R16	Cemetery	Recreational	440m	West
R17	Allotments	Recreational	430m	West
R18	Husbands Bosworth Landfill Site	Commercial / Industrial	290m	Southwest
R19	Gliding Centre	Recreational	410m	South
R20	NBJ Carpentry	Commercial / Industrial	580m	Southwest
R21	Spring	Spring	400m	West
R22	Spring	Spring	35m	East
R23	Unnamed Stream	Waterbody	Adjacent	South
R24	Gravel Pit Spinney	Woodland (Deciduous)	On-Site	Within
R25	Lodge Spinney	Woodland (Deciduous)	Adjacent	North
R26	Hollow Spinney	Woodland (Deciduous)	75m	East / Southeast
R27	Carland Spinney	Woodland (Deciduous)	285m	Southeast

ID	Receptor Name	Type of Receptor	Approximate nearest distance from the operational boundary	Direction from proposed landfill footprint
R28	Unnamed Deciduous Woodland	Woodland (Deciduous)	90m	South
R29	Agricultural Land	Agricultural	Adjacent	All Directions
R30	Public Footpaths & Bridleways	Public Rights of Way	Adjacent	Within
R31	Secondary A / Secondary Undifferentiated Aquifer (Sand and Gravels)	Groundwater	Adjacent	All Directions
R32	Great Crested Newts	Amphibian	On-Site	Within
R33	Sand Martins	Bird	On-Site	Within
R34	Grand Union Canal	Waterbody	810m	North

1.2.8 The distances specified in the **Table EARA1** represent the distance from the permit boundary to the receptor. In some instances the distance between operation areas of the landfill footprint and the receptors may be greater.

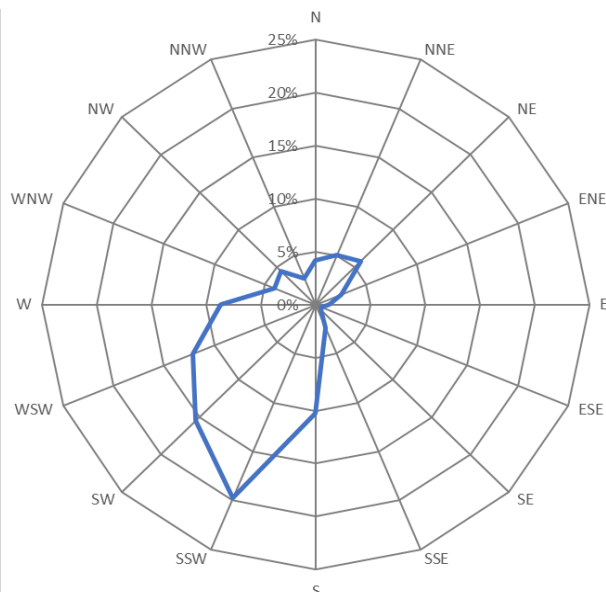
Meteorological Conditions

1.2.9 The local wind speed and direction data has been obtained from the meteorological station located at Coventry Airport, which lies 30km southwest of Husbands Bosworth Quarry (International Civil Aviation Organisation (ICAO) Airport Code: EGBE). The National Grid Reference (NGR) for Coventry Airport is SP 35279 74420. This weather station is deemed the most appropriate for use in order to characterise the site due to its proximity and its inland environmental setting. Wind patterns at the Coventry Airport Station are likely to be similar to those experienced at the site.

1.2.10 Wind direction data and a wind rose for the period 2000 – 2010 (inclusive) are presented in **Figure EARA1**.

Figure EARA1: Wind Direction Data and Wind Rose for Coventry Airport Meteorological Recording Station Between 2000 – 2010 inclusive (Source: RenSMART)

Direction	Percentage
N	4.15%
NNE	5.04%
NE	5.79%
ENE	2.54%
E	1.27%
ESE	0.60%
SE	0.68%
SSE	2.35%
S	10.28%
SSW	19.77%
SW	15.50%
WSW	12.16%
W	8.66%
WNW	4.08%
NW	4.47%
NNW	2.66%



1.2.11 The predominant wind directions are from the south-western quadrant, which makes up ~66% of the winds. It can be observed from **Figure EARA1** that the wind will be blowing primarily from the south-southwest and southwest.

1.3 Risk Assessment

Risk Assessment Criteria

1.3.1 The risk assessment will be prepared using the widely accepted source-pathway-receptor methodology, and is the preferred method specified in the EA guidance. Where any complete source-pathway-receptor linkage exists, the magnitude of any such risk is qualified by the probability and consequence of any such risk occurring. The criteria to be adopted for the risk assessment are present in **Table EARA2**.

Table EARA2: Risk Assessment Criteria

Probability ⇨ Consequence ↓	Very Low	Low	Moderate	High
Very Low	Negligible	Very Low	Low	Low-Moderate
Low	Very Low	Low	Low-Moderate	Moderate
Moderate	Low	Low-Moderate	Moderate	High
High	Low-Moderate	Moderate	High	Very high

1.3.2 An environmental and accident risk assessment for the waste recovery operations is presented in **Appendix EARA1**. The assessment covers the following potential risks;

- Fugitive emissions to air (dust and particulates);
- Odour;
- Litter;
- Mud and Debris on the road;
- Scavenging Birds, Vermin and Insects;
- Noise & Vibration;
- Fugitive emissions to water;
- Accidents; and
- Protected Habitats & Species.