

FOYLE MEATS MELTON RD SIX HILLS MELTON MOWBRAY LE14 3PR

Environmental Permit Application SCR Support Information Document Ref: Attachment B.2.3.B

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

1.0 INTRODUCTION AND BACKGROUND INFORMATION

1.1 INTRODUCTION

This document contains the necessary information to supplement a Site Condition Report (SCR) that has been prepared for the Foyle Food Group Ltd. slaughtering and processing facility at Melton Road, Six Hills, Melton Mowbray, Leicestershire, LE14 3PD, UK. This SCR will be submitted to the Environment Agency in support of an application for a Bespoke Environmental Permit under the Environmental Permitting Regulations (2016) for England and Wales.

The main facility is located on a 24,000 m² site and includes an intake/cattle lairage, main processing building (slaughtering, chilling, packing, dispatch etc.), maintenance workshop, car parks and external storage areas.

Site Area	24,000 M ²	
Location	Six Hills, Melton Mowbray, LE14 3PD, UK.	
Max Dimensions	215m (south-western corner to north-eastern corner).200 m (north-western corner to south-eastern corner).	
Current Use	Cattle Slaughter and Meat Processing	
Surfacing	Predominantly made-ground (concrete or hardcore material) approx. 12,573 M ² .	
Vegetation	The site contains two green areas: South-Western corner: 4,073 M ² , Eastern boundary: 4,489 M ² .	
Ground Slope	According to online altimeter tools, the site does not contain a slope and stands at 120m AOD.	
Buildings and State of Repair	No significant signs of structural distress noted in existing buildings.	
Water Course	Kingston Brook (western boundary)	
Boundaries	The north of the site is bounded by green fields. The east of the site is bounded by green fields. The west of the site is bounded by industrial units. The south of the site is bounded by the B6767 road and the access roadway to the adjacent industrial units.	
Potential Contaminant Sources	None - short standing historical use.	
Geotechnical issues	None	
Map / Scale	Ordnance Survey Explorer 246 – Loughborough	
Superficial Deposits	Till – Diamicton. Oadby Member – Diamicton.	
Bedrock Geology	Lias Group - Mudstone, Siltstone, Limestone And Sandstone. Scunthorpe Mudstone Formation – Mudstone.	

 Table 1.1: Foyle Meats – Melton Mowbray Production Facility Summary Table

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

1.2 SITE OVERVIEW

Foyle Food Group operates a slaughtering facility on a 24,000 M^2 site located at Six Hills, Melton Mowbray, LE14 3PD, United Kingdom. Activities at the site include the slaughter of cattle and the dressing, chilling and quartering of beef carcasses, the harvesting of offal, cod fat and the packing of beef offal and cod fat into vacuum pouches and lined cardboard boxes.

The northern and eastern site boundaries are bounded by green-fields, which contains an operational farmstead. The northeast of the site is bounded by a green-field, beyond which is the Six Hills Leisure facility and golf course. At its closest point, this golf course comes within c.125m of the site boundary.

The west boundary is bounded by two industrial units and associated carpark, beyond which is the A46 road. The south of the site is mostly bounded by a local access roadway into the adjacent industrial units and partially bounded by the B676 road.

The closest residential properties to the site are located on the A46 Road, *c*.220m south-west of the site boundary.

Prior to being acquired by the Foyle Food Group, the site was a privately owned beef slaughtering facility.

The company's customer base is split between commercial and retail. The site produces primal frozen quarters which are dispatched to other Foyle Foods site for further processing. Boning is not carried out at the site.

The site employs approximately 77 staff, including office and admin personnel.

The actual tonnage of finished product produced in 2023 was 14,809.90 tonnes, which is an average of 284.81 tonnes per week.

The plant operates production shifts on a five-day basis between 07:00-15:00, while cleaning occurs during evening & night-time hours. Weekend work may occur at peak production times and the engineering team provide 24/7 cover.

No effluent treatment occurs at the site. Effluent in stored in the Effluent Storage Sump and the Truck-Wash Sump, which are emptied daily by road tanker for off-site treatment.

All water is sourced from a main supply, while the site contains a single hot water boiler.

All waste is segregated on-site for removal to offsite waste facilities as appropriate.

The site holds the following accreditations:

- BRCGS
- Red Tractor
- AHDB Beef and Lamb (formally EBLEX)
- Organic Soil Association
- ISO 14001
- USDA Approved

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

1.3 Listed Structure

The site does not contain any listed building or other protected sites within the boundary.

According to the National Heritage List for England (NHLE), the closest listed structures are located c.1.75kn to the south-east at Ragdale and consist of the following:

Name	Heritage Category	Grade	List Entry Number	Date first listed
Church Of All Saints	Listed Building	II*	1188553	01-Jan-1968
Churchyard Wall At Church Of All Saint	Listed Building	II	1360931	31-Aug-1979
Churchyard Cross	Scheduled Monument	-	1014510	25-Feb-1951

There are three types of listed status for buildings in England and Wales:

- Grade I: buildings of exceptional interest.
- Grade II*: particularly important buildings of more than special interest.
- Grade II: buildings that are of special interest, warranting every effort to preserve them.

See Appendix A: Map I – Listed Structures

1.4 Previous Site Assessments

Operations at the site involving the use, production or release of relevant hazardous substances and their control measures are outlined in the H1 Environmental Risk Assessment submitted in support of this application (Attachment B.2.5.A & B.2.5.B).

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.0 DESKTOP STUDY

2.1 SOURCES OF INFORMATION

The sources of material used for the desktop survey, archive and current, are detailed in full in the reference section of this document.

- Geological maps and data were sourced from the British Geological Survey database. Hydrogeological, abstraction, surface water, flood risk, flood map for planning, drinking water safeguard zones, landfill, pollution and existing licence data from the Environment Agency was used.
- Historical land use data and maps of the site were sourced from the National Library of Scotland's website which uses archived Ordnance Survey maps.
- Information on SAC's and SPA's were sourced from the European Environment Agency's Natura 2000 map viewer.
- Information on CRoW was sourced from interactive maps on MAGIC the UK government's authoritative source of geographical information.
- River catchment data was sourced from the EA Catchment Data Explore site and Severn Vale Abstraction Licensing Strategy.
- Habitat and protected site data was sourced from the Joint Nature Conservation Committee.
- Air Quality Management Area data was obtained from the Department for Environment, Food & Rural Affairs.
- Archaeological data was sourced from the search tool on The British Archaeological Association's website.
- Information on local environmental permit holders was sourced on the Environmental Agency's public register.

2.2 GEOLOGY

2.2.1 Superficial

Superficial deposits (formerly known as 'drift' by BGS) are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 2.6 million years from the present. They rest on older deposits or rocks referred to as bedrock.

For BGS Geology, superficial deposits that are of natural origin and 'in place', are held in the Superficial deposits theme. Other superficial strata may be held in the mass movement theme where they have been moved, or in the artificial ground theme where they are of man-made origin. Further information on superficial deposits is found in the BGS Rock Classification Scheme Volume 4.

Superficial deposits were originally recorded only onshore and around the coast where they were laid down by various natural processes such as action by ice, water and wind. More recently offshore deposits have been mapped and may be held in a separate sea-bed Sediments theme.

Most of these superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads. Almost all of these deposits were formerly classified on the basis of mode of origin with names

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

such as, 'glacial deposits', 'river terrace deposits' or 'blown sand'; or on their composition such as 'peat'. Recently some of them have been given formal lithostratigraphic names such as 'Lowestoft Formation'. More information on some units is available in the BGS Lexicon of Named Rock Units.

The Foyle Meats – Melton Mowbray site is situated on the following superficial regions:

Region 1

1:625,000 scale superficial deposits description:

Till - Diamicton. Superficial Deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions.

Setting:

Ice age conditions. These rocks were formed in cold periods with Ice Age glaciers scouring the landscape and depositing moraines of till with outwash sand and gravel deposits from seasonal and post glacial meltwaters

Region 2

1:50,000 scale superficial deposits description:

Oadby Member - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions (U).

Setting:

Ice age conditions (U). These sedimentary deposits are glacigenic in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary

See Appendix A: Map A.1 & Map A.2 – Superficial Geology

2.2.2 Bedrock

Bedrock geology (formerly known as 'solid' geology by BGS) is a term used for the main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water. The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 2.6 million years ago.

For BGS Geology and related purposes all these rocks are placed in a separate Bedrock theme of information. Wherever possible, they are referred to by their current name; for stratified units this will usually be of lithostratigraphic type. More information on units is available in the BGS Lexicon of Named Rock Units.

Geological maps usually show all the bedrock strata onshore, apart perhaps from beneath extensive spreads of superficial deposits such as coastal plain alluvium. For BGS Geology 50k the bedrock has been extrapolated, where possible, beneath these and out to about the low water mark around the coast. On some recently published geological maps bedrock is also mapped offshore on the continental shelf.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary. These are described in the BGS Rock Classification Scheme Volumes 1-3.

Igneous rocks are derived from molten magma in the Earth's crust. They may, for example, be extruded at the surface by volcanic activity, to form lavas and tuffs (ash); or intruded into other rocks to form large masses of granite and gabbro at depth or minor crosscutting basalt dykes near the surface. Metamorphic rocks such as schist and gneiss are those that have been changed from one rock type to another in the solid state by the recrystallisation of minerals, often at high temperatures and pressures when buried deep in the Earth's crust. Sedimentary rocks are formed when grains and fragments of existing rocks are eroded away by ice, water and wind action, transported elsewhere and redeposited as a sediment. These sediments are often laid down in layers or strata of loose particles of gravel, sand, silt and clay. Over time they may be buried by later sediments and consolidated or cemented to form stratified or bedded rocks such as conglomerate, sandstone, siltstone and claystone. Other sedimentary rocks such as ironstone and limestone are created by chemical or biogenic (life) action.

The geological sequence of rocks preserved varies from place to place but packages of strata with similar characteristics may be recognisable over considerable distances. Such study has developed into the science of stratigraphy, of which lithostratigraphy is but one type.

The Foyle Meats – Melton Mowbray site is situated on the following bedrock regions:

Region 1

1:625 000 scale bedrock geology description:

Lias Group - Mudstone, Siltstone, Limestone And Sandstone. Sedimentary Bedrock formed approximately 172 to 204 million years ago in the Jurassic and Triassic Periods. Local environment previously dominated by shallow seas.

Setting:

Shallow seas. These rocks were formed in shallow seas with mainly siliciclastic sediments (comprising of fragments or clasts of silicate minerals) deposited as mud, silt, sand and gravel.

Lithological Description:

Predominantly grey, well bedded, marine calcareous mudstone and silty mudstone; thin tabular or nodular beds of argillaceous limestone, particularly in the lower part; thicker units of siltstone and sandstone, particularly in the upper part, and ironstone, particularly in the middle part. Marginal limestone facies also occur. Offshore, the group comprises dominantly mudstones and argillaceous limestones in four formations: Cerdic Formation, Ida Formation, Offa Formation and Penda Formation.

Definition of Lower Boundary:

In some areas, markedly non-sequential on Penarth Group; at base of Blue Lias Formation, Scunthorpe Mudstone Formation or Redcar Mudstone Formation (q.v.). Offshore the group is defined by the base of the Penda Formation where there is a downward change from hard, thinly bedded argillaceous limestones and mudstones to black, organic-rich mudstones at the top of the Penarth Group.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

Definition of Upper Boundary:

Commonly an eroded surface at the base of lowest limestone or sandstone of the Inferior Oolite Group, Ravenscar Group or Dogger Formation. Offshore: Defined by the top of the Cerdic Formation where paralic sandstones and mudstones of the West Sole Group, overlie marine mudstones and sandstones of the Lias Group.

Thickness:

To c. 1300 m. Offshore: Generally less than 300m, but up to 820m.

Geographical Limits:

Onshore and offshore United Kingdom, including Northern Ireland (see Cope et al., 1980). Offshore: Southern North Sea Basin (quadrants 35, 40-44, 46-49, 51-52).

Region 2

1:50 000 scale bedrock geology description:

Scunthorpe Mudstone Formation - Mudstone. Sedimentary Bedrock formed approximately 191 to 210 million years ago in the Jurassic and Triassic Periods. Local environment previously dominated by shallow seas.

Setting:

Shallow seas. These sedimentary rocks are shallow-marine in origin. They are detrital, ranging from coarse- to fine-grained (locally with some carbonate content) forming interbedded sequences.

Lithological Description:

Grey, variably calcareous and silty, blocky or fissile mudstone with thin beds of argillaceous limestone (bioclastic or micritic) and calcareous siltstone, particularly near base and in upper part, which is ferruginous in the type area.

Definition of Lower Boundary:

Where lowest grey mudstone (may be laminated) of the Lias Group rests with sharp contact on bluish and greenish grey to (less commonly) reddish brown mudstone of the Cotham Member (Lilstock Formation, Penarth Group) or on grey porcellanous limestone of the Langport Member (Lilstock Formation, Penarth Group) where locally present.

Definition of Upper Boundary:

In type area, at top of Frodingham Ironstone (Gaunt, G D, Fletcher, T P and Wood, C J, 1992); elsewhere, at erosive base of thin pebbly ferruginous oolite (Glebe Farm Bed), which marks the base of the Charmouth Mudstone Formation.

Thickness:

To c.128m

Geographical Limits:

East Midlands Shelf (north) (Leicester to Market Weighton).

See Appendix A: Map B.1 & Map B.2 – Bedrock Geology

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.3 HYDROGEOLOGY

2.3.1 Waterbodies/Rivers

The closest waterbody to the site is the Kingston Brook, which lies at the western boundary of the site.

Kingston Brook is a small river in central England. It arises near Old Dalby, Leicestershire on the northern edge of the ridge running from Normanton-on-Soar, Nottinghamshire to Belvoir, Leicestershire. It runs through Willoughby on the Wolds, to the south of Wysall, Costock, East Leake, West Leake and meets the River Soar near Kingston-on-Soar

The Kingston Brook is a tributary/ source of confluence of the Soar River, which is a major tributary of the River Trent in the English East Midlands and is the principal river of Leicestershire.

River Basin District	Humber	
Management Catchment	Soar	
Operational Catchment	onal Catchment Soar River	
Water Body	Kingston Brook	
I.D.	GB104028046600	
Catchment Area	6095.69 ha	
Length	25.671 km	
Classification (2016)	Poor	

The following is a breakdown of the catchment within which the Foyle Meats site is located:

2.3.2 Catchment Overview

Soar CAMS area The River Soar is a significant tributary of the River Trent. From its source, south-east of Hinckley, the river follows a northerly course towards its confluence with the River Trent near Ratcliffe on Soar, south west of Nottingham. There are a number of important tributaries, including the rivers Sence and Wreake and the Rothley, Black and Kingston brooks. The Charnwood Reservoir Group, located in the north west of the catchment, includes Cropston, Swithland, Thornton, Blackbrook and Nanpantan reservoirs. With the exception of Nanpantan, these water-bodies are impounding reservoirs, with legal agreements requiring compensation discharges to be made from Thornton Reservoir to the Rothley Brook and from Blackbrook Reservoir to the Black Brook, maintaining flow downstream of the dams.

2.3.3 Catchment Hydrology

The catchment of the River Soar covers an area of approximately 1,380km², covering much of the county of Leicestershire, together with small areas of south Nottinghamshire and north east Warwickshire. Located near the centre of the catchment, the principle urban area is the City of Leicester, with a population of approximately 280,000. Other significant towns include Wigston, Melton Mowbray, Loughborough and Kegworth.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.3.4 Catchment Geology and Hydrogeology

The geology of the Soar CAMS area is dominated by impermeable clays and marls with limited areas of permeable rocks that provide exploitable groundwater resources. In the north west of the catchment there are some limited outcrops of Sherwood Sandstone, classified as a 'principal' aquifer. Although not viewed as 'strategic' or regionally significant, these can provide locally important groundwater sources, as does the pre-Cambrian strata of this area of the catchment. More widespread through the river corridors of the catchment are alluvial sand and gravel deposits, although the extent and depth of these superficial deposits can be limited.

2.3.5 Catchment Land Use and Topography

The River Soar is predominantly a lowland watercourse, rising in the south west of the catchment. The rivers Sence, Eye, Wreake and Kingston Brook all drain typically rolling Wolds countryside. However, Charnwood, in the west of the catchment, rises to 250 metres above sea level, with an upland heathland environment contrasting against the gentle rolling open farmland of the surrounding clay areas of the Leicestershire wolds. The pre-Cambrian, solid geology of the upland area generated a favourable location for the construction of the reservoirs during the nineteenth century for public water supply to Leicester. The Rothley, Quorn and Black brooks drain this area.

2.3.6 Catchment Main Water Resources Pressure

There are few water resource pressures within the Soar catchment as the vast majority of public water supply is imported from neighbouring catchments. There are a number of public water supply reservoirs in the west of the catchment. Many of these reservoirs have been designated SSSIs by Natural England. There is very little strategically important groundwater licences.

The overview map in Appendix A: Map G shows the geographical area of the Soar catchment.

See Appendix A: Map L - Nearby Waterbody / River

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.3.8 Kingston Brook

Classifications:

Cycle 2 Classifications (running from the publication of river basin plans in 2015 until 2021)						
Classification Item 2013 2014 2015 2016						
Overall Water Body	Moderate	Poor	Poor	Poor		
Ecological	Moderate	Poor	Poor	Poor		
Chemical	Good	Good	Good	Good		

Cycle 2 Classifications (running from the publication of river basin plans in 2009 until 2015)

Classification Item	2009	2010	2011	2012	2013	2014
Overall Water Body	Poor	Poor	Poor	Poor	Poor	Poor
Ecological	Poor	Poor	Poor	Poor	Poor	Poor
Chemical	Does not require assessment					

Reason Type	SWMI	Activity	Category	Classification Element
RNAG	Point source	Sewage discharge (continuous)	Water Industry	Phosphate
RNAG	Diffuse source	Poor Livestock Management	Agriculture and rural land management	Macrophytes and Phytobenthos Combined
RNAG	Point source	Sewage discharge (continuous)	Water Industry	Macrophytes and Phytobenthos Combined
RNAG	Diffuse source	Poor Livestock Management	Agriculture and rural land management	Phosphate
NAG	Diffuse source	Poor Livestock Management	Agriculture and rural land management	Phosphate
RNAG	Point source	Sewage discharge (continuous)	Water Industry	Macrophytes and Phytobenthos Combined
RNAG	Diffuse source	Poor Livestock Management	Agriculture and rural land management	Macrophytes and Phytobenthos Combined
RNAG	Point source	Sewage discharge (continuous)	Water Industry	Phosphate

Reasons for not achieving good status and reasons for deterioration

See Appendix A: Map O – Kingston Brook Catchment

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.3.9 Aquifer

The Aquifer Designation identifies different types of aquifer - underground layers of waterbearing permeable rock or drift deposits from which groundwater can be extracted. These designations reflect the importance of aquifers in terms of groundwater as a resource (drinking water supply) but also their role in supporting surface water flows and wetland ecosystems.

The aquifer designations are:

- **Principal Aquifers**: geology that exhibit high permeability and/or provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale;
- Secondary Aquifers A: permeable strata 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 Aquifer B: predominantly lower permeability strata, which may in part have the ability to store and yield limited amounts of groundwater by virtue of localised features such as fissures, thin permeable horizons and weathering.
- **Secondary (Undifferentiated)**: In cases where it has not been possible to attribute either category A or B to a rock type;
- **Unproductive Strata**: These are geological strata with low permeability that have negligible significance for water supply or river base flow Aquifers previously designated as major and minor have now become principal and secondary respectively.

The maps are split into two different type of aquifer designation:

- superficial permeable unconsolidated (loose) deposits (for example, sands and gravels), and
- bedrock solid permeable formations e.g. sandstone, chalk and limestone.

The Foyle Meats site is located on a Secondary (Undifferentiated) Superficial Aquifer and an Unproductive Bedrock Aquifer.

See Appendix A: Map C.1 and Map C.2 – Aquifer Designation

2.4 HISTORICAL USES OF THE SITE

Prior to being acquired by Foyle Food Group, the site contained an existing abattoir. Prior to this, the site was a green-field used for agricultural grazing.

As can be seen in the historical maps supplied in Appendix C, the site remained undeveloped until recently.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.5 **POLLUTION INCIDENTS**

No historical pollution incidents have occurred at the site.

2.6 LANDFILL SITES

No evidence of active or historic landfill operations have been identified on the site.

According to Environment Agency Maps, no active landfills previously operated in the area of the site.

The same map shows that the closest historical landfill to the site was located c.5.0 Km to the south-east of the Foyle Meats site, just north of Frisby on the Wreake.

See Appendix C: Map Z - Authorised and Historic Landfills

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.7 GROUNDWATER VULNERABILITY AND SOURCE PROTECTION

2.7.1 Groundwater Vulnerability

The term 'groundwater vulnerability' refers to the intrinsic properties of the groundwater system that depend on the sensitivity of the material in permitting the degradation of the saturated zone by pollutant substances originating from human activities.

Groundwater provides a third of all drinking water in England. To ensure that this water is safe to drink, the EA has defined Source Protection Zones. These zones help monitor the risk of contamination from any activities that might cause pollution on the area.

The Groundwater Vulnerability Maps show the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a single square kilometre. The 2017 publication has updated the groundwater vulnerability maps to reflect improvements in data mapping, modelling capability and understanding of the factors affecting vulnerability

The map has five risk categories (High, Medium-High, Medium, Medium-Low and Low) based on the likelihood of a pollutant reaching the groundwater (i.e. the vulnerability), the types of aquifer present and the potential impact (i.e. the aquifer designation status).

The site has been designated as area of Low Groundwater Vulnerability.

See Appendix A: Map E – Groundwater Vulnerability Zones.

2.7.2 *Ground Water Source Protection Zone*

Source Protection Zones [Merged] have been created as public facing boundaries where discrete groundwater bodies within Source Protection Zones (SPZ) have been dissolved on zone number where common boundaries and overlaps have been removed. SPZs are defined around large and public potable groundwater abstraction sites. The purpose of SPZs is to provide additional protection to safeguard drinking water quality through constraining the proximity of an activity that may impact upon a drinking water abstraction. This is part of an initial screening process in assessing impacts to groundwater resources. Zones around location sites are defined by groundwater travel time to an abstraction. This is determined through applying Environment Agency groundwater flow models run at the location of abstractions, inputting parameters such as flow direction, geology type, rainfall and hydrological boundaries. SPZs provide a visual representation of the increased risks as you get closer to the abstraction.

The following subdivisions are defined within SPZs:

Zone 1: (Inner Protection Zone) - This zone is defined by a travel time of 50-days or less from any point within the zone at, or below, the water table. Additionally, the zone has as a minimum a 50-metre radius. It is based principally on biological decay criteria and is designed to protect against the transmission of toxic chemicals and water-borne disease.

Zone 2: (Outer Protection Zone) - This zone is defined by the 400-day travel time from a point below the water table. Additionally, this zone has a minimum radius of 250 or 500 metres, depending on the size of the abstraction. The travel time is derived from consideration of the minimum time required to provide delay, dilution and attenuation of slowly degrading pollutants.

SCR SUPPORTING INFORMATION FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

Zone 3: (Total catchment) - This zone is defined as the total area needed to support the abstraction or discharge from the protected groundwater source.

Zone 4, or 'Zone of Special Interest' was previously defined for some groundwater sources. These zones highlighted areas (mainly on non-aquifers) where known local conditions meant that potentially polluting activities could impact on a groundwater source even though the area is outside the normal catchment of that source.

The Foyle Meats site is not within a Source Protection Zone, the closest of which is located 10.91km in Melton Mowbray to the east-southeast of the site.

See Appendix A: Map D – Source Protection Zone

2.7.3 Drinking Water Safeguard Zones - Groundwater

Drinking water safeguard zones are designated areas in which the use of certain substances must be carefully managed to prevent the pollution of raw water sources that are used to provide drinking water.

Water is a vital natural resource. In order to provide water for people to drink, we must take (or abstract) raw water from reservoirs, rivers and the ground (known as groundwater), these are referred to a Drinking Water Protected Areas (DrWPAs) within the Water Framework Directive. Where necessary, this raw water is treated to purify it for us to drink.

In order to protect our water, we want to ensure that we are not polluting it with additional substances leading to the need for more treatment. To do this, we identify Safeguard Zones for any raw water sources that are 'at risk' of deterioration which would result in the need for additional treatment. These zones are areas where the land use is causing pollution of the raw water. Action is targeted in these zones to address pollution so that extra treatment of raw water can be avoided.

Drinking Water Groundwater Safeguard Zones (SgZs) are established around public water supplies where additional pollution control measures are needed. The Water Framework Directive requires that Drinking Water Protected Areas are identified (WFD Article 7.1) and that they are given the necessary protection (WFD Article 7.3) with the aim of avoiding deterioration in their quality in order to reduce the level of purification treatment required in the production of drinking water.

The geometry of Groundwater Safeguard Zones are based on Groundwater Source Protection Zones (SPZs), usually the SPZ 2, and use additional assessment to identify areas, which may or may not coincide with the SPZ, where additional measures are required to ensure that abstraction waters meet Article 7.3 of the WFD. SgZs can be large or small depending on the pollution problem and may not cover the whole of a catchment or sub-catchment.

The Foyle Meats site is not within a Groundwater Drinking Water Safeguard Zones, the closest of which is located 26.45 Km to the north at Epperstone (GWSGZ0300), which is designation At Risk from Nitrate.

See Appendix A: Map F – Drinking Water Safeguard Zones – Groundwater.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.8 WATER ABSTRACTION

Water may be abstracted from groundwater, surface water or tidal water. An abstraction licence details what is permitted, such as how much water is allowed to be abstracted and at what time period.

Kingston Brook (AP17) was used an assessment point on the Soar Abstraction Licensing Strategy (February) 2013, which stated:

For AP7, the Kingston Brook catchment, there is water available for further licensing subject to a HOF of 340Ml/d at Kegworth (River Soar).

This means that for new licences:

- No new unconstrained abstraction will be granted
- Groundwater licences will be considered for small abstractions on a case by case basis depending on the scale and impact on surface water
- There is a time limit of 31st March 2025 For existing licences:

There is a presumption of renewal, subject to the following renewal criteria and local considerations.

- environmental sustainability is not in question
- there is a continued justification of need for the water
- the water is used efficiently. Any objections received to renewal of the licence will also be take into account.

Six years notice will be given if a licence will not be renewed or is to be renewed on more restrictive terms that impact significantly on the use of that licence.

No water abstraction occurs at the Foyle Meats site.

See Appendix A: Map G – Soar Cams Area And Inspection Points

Ref/ID	Name	Distance	Dir	Depth
SK62SW35	Durham Ox Hotel Six Hills Well No.2	75.0m	W	16.76m
SK62SW7	Six Hills Ragdale	140m	SW	62.17m
SK62SW34	Durham Ox Hotel Six Hills Well No.1	165m	W	18.29m
SK62SW8	Durham Ox Six Hills Willoughby	255m	W	60.35m
SK62SW2	B.P.B. BH28A	535m	N-NW	-

The following is a list of Boreholes within a	1 1km radius of the For	yle Meats site:
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See Appendix A: Map J – Monitoring Boreholes

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.9 SURFACE WATER

2.9.1 Drinking Water Safeguard Zones

Drinking water safeguard zones are designated areas in which the use of certain substances must be carefully managed to prevent the pollution of raw water sources that are used to provide drinking water. Water is a vital natural resource. In order to provide water for people to drink we must take (or abstract) raw water from reservoirs, rivers and the ground (known as groundwater), these are referred to a Drinking Water Protected Areas (DrWPAs) within the Water Framework Directive. Where necessary this raw water is treated to purify it for us to drink.

In order to protect our water, we want to ensure that we are not polluting it with additional substances leading to the need for more treatment. To do this we identify Safeguard Zones for any raw water sources that are 'at risk' of deterioration which would result in the need for additional treatment. These zones are areas where the land use is causing pollution of the raw water. Action is targeted in these zones to address pollution so that extra treatment of raw water can be avoided.

2.9.2 Surfacewater Zones

Drinking Water Safeguard Zones (Surface Water) are catchment areas that influence the water quality for their respective Drinking Water Protected Area (Surface Water), which are at risk of failing the drinking water protection objectives. These non-statutory Safeguard Zones are where action to address water contamination will be targeted, so that extra treatment by water companies can be avoided. Safeguard Zones are a joint initiative between the Environment Agency and water companies. Safeguard Zones are one of the main tools for delivering the drinking water protection objectives of the Water Framework Directive. This data includes what substances are causing the drinking water protected area to be 'at risk'.

The Foyle Meats site is not within a Surfacewater Drinking Water Safeguard Zones, the closest of which is 9.17 Km to the south-west at Woodhouse Eaves (SWSGZ2300), which is designated At Risk from at risk from: Pesticides (Mecoprop, Metaldehyde).

See Appendix A: Map M – Drinking Water Safeguard Zones – Surfacewater.

2.9.3 Nitrate Vulnerable Zones

Nitrate Vulnerable Zones (NVZs) are areas designated as being at risk from agricultural nitrate pollution. The designations are made in accordance with the Nitrate Pollution Prevention Regulations 2015.

Waters are defined within the Nitrates Directive as polluted if they contain or could contain, if preventative action is not taken, nitrate concentrations greater than 50mg/l. The European Commission (EC) nitrates directive requires areas of land that drain into waters polluted by nitrates to be designated as Nitrate Vulnerable Zones (NVZs).

The Foyle Meats site is located within the SOAR R NVZ - Surface Water 309.

See Appendix A: Map N – Surfacewater Nitrate Vulnerable Zones.

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2.10 FLOOD RISK

Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences. They are shown on the Environment Agency's Flood Map for Planning (Rivers and Sea), available on the Environment Agency's web site.

Flood Zones:

- <u>Zone 1 Low Probability:</u> Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)
- <u>Zone 2 Medium Probability:</u> Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)
- <u>Zone 3a High Probability</u> Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding (Land shown in dark blue on the Flood Map).
- <u>Zone 3b The Functional Floodplain</u> This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency.

The Foyle Meats site is located within Flood Zone 1 – Low Probability.

The closest Zone 2 location to the site is c.1.80km to the north upon a section of the Kingstown Brook.

See Appendix A: Map H - Flood Map for Planning

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2.11 PRESCRIBED PROCESSES

There are eight Environmental Permitted sites within 1km of postcode LE14 3PD:

Name	Permit Number	Туре
Severn Trent Water Limited	MI/T/58/02777/T/001	Environmental Permitting Regulations - Discharges to water and groundwater for England
Shoby Priory Agricultural Limited	WEX359907	Waste Exemption Registrations for England
Andrew Hawley	WEX252076	Waste Exemption Registrations for England
Severn Trent Water Limited	WEX254290	Waste Exemption Registrations for England
Wrights Of Twycross Ltd	WEX261470	Waste Exemption Registrations for England
Automobile Association Developments Limited	MI/EPRVP3220XG/001	Environmental Permitting Regulations - Discharges to water and groundwater for England
Six Hills International Hotel	MI/T/58/45064/S/001	Environmental Permitting Regulations - Discharges to water and groundwater for England
Parkdale Ventures Limited	MI/T/58/45064/S/002	Environmental Permitting Regulations - Discharges to water and groundwater for England

Source: <u>https://environment.data.gov.uk/public-register/view/index</u>

There are no licenced Waste Operators, End of Life Vehicles (ELV), Scrap Metal Dealers, or Installations within 1km of the site.

No facility within 10km of the site is permitted to handle Radioactive Substances

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.12 DISCHARGE CONSENTS

Foyle Meats - Melton Mowbray does not have a Consent to Discharge Licence.

All effluent and foul water is tankered off-site for further treatment.

2.13 **NEIGHBOURS**

The east of the site is bounded by green-field, which contains an operational farmstead.

The northeast of the site is bounded by a green-field, beyond which is the Six Hills Leisure facility and golf course. At its closest point, this golf course comes within c.125m of the site boundary.

The north of the site is bounded by a green-field.

The south of the site is mostly bounded by a local access roadway into the adjacent industrial units and partially bounded by the B676 road.

The west boundary is bounded by two industrial units and associated carpark, beyond which is the A46 road.

The closest residential properties to the site are located on the A46 Road, *c*.220m south-west of the site boundary.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.14 PROTECTED AREAS

2.14.1 Habitats Directive Sites (pSCI, SCI or SAC)

A Special Area of Conservation (SAC) is the land designated under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

There are no SAC's within a 10km radius of the site. The closest is River Mease SAC, which is located c.29.25km West-Southwest of the site boundary.

See Appendix B: Map Q – Habitats Directive Sites (pSCI, SCI or SAC)

Site Details		
Country	England	
Unitary Authority	IthorityDerbyshire and Nottinghamshire, Leicestershire, Rutland and Northamptonshire, Shropshire and Staffordshire	
Centroid	SK260114	
Latitude	52.69972222	
Longitude	-1.615555556	
SAC EU Code	UK0030258	
Area (ha)	23.03	
Distance to site	29.25Km West-Southwest.	
General Site Character:		
Inland water bodies (Stand	ing water, Running water) (100%).	
Annex I habitats that are a	primary reason for selection of this site:	
Not Applicable.		
Annex I habitats present as	s a qualifying feature for selection of this site:	
3260 Water courses of plai	n to montane levels with the Ranunculion fluitantis and	
Callitricho-Batrachion veg	etation.	
Annex II species that are a primary reason for selection of this site.		
Annex II species that are a primary reason for selection of this site. 1149 Spined loach Cobitis taenia: The River Mease is a good example of a riverine population of spined loach Cobitis taenia. It is a small tributary of the River Trent and has retained a reasonable degree of channel diversity compared to other similar rivers containing spined loach populations. It has extensive beds of submerged plants along much of its length which, together with its relatively sandy sediments (as opposed to cohesive mud) provides good habitat opportunities for the species. 1163 Bullhead Cottus gobio: The Mease is an example of bullhead Cottus gobio populations in the rivers of central England. Bed sediments are generally not as coarse as other sites selected for the species, reflecting the nature of many rivers in this geographical area, but are suitable in patches due to the river's retained sinuosity. The patchy cover from submerged macrophytes is also important for the species.		
The River Mease is a good It is a small tributary of the diversity compared to othe extensive beds of submerg relatively sandy sediments opportunities for the specie 1163 Bullhead Cottus gol The Mease is an example of England. Bed sediments an reflecting the nature of ma due to the river's retained a important for the species.	 example of a riverine population of spined loach Cobitis taenia. e River Trent and has retained a reasonable degree of channel r similar rivers containing spined loach populations. It has ed plants along much of its length which, together with its (as opposed to cohesive mud) provides good habitat es. bio: bio: bio f bullhead Cottus gobio populations in the rivers of central e generally not as coarse as other sites selected for the species, ny rivers in this geographical area, but are suitable in patches sinuosity. The patchy cover from submerged macrophytes is also 	
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The River Mease is a good It is a small tributary of the diversity compared to othe extensive beds of submerg relatively sandy sediments opportunities for the specie 1163 Bullhead Cottus gol The Mease is an example of England. Bed sediments an reflecting the nature of ma due to the river's retained important for the species. Annex II species present selection 1092 White-clawed (or A 1355 Otter (Lutra lutra)	 example of a riverine population of spined loach Cobitis taenia. e River Trent and has retained a reasonable degree of channel r similar rivers containing spined loach populations. It has ed plants along much of its length which, together with its (as opposed to cohesive mud) provides good habitat es. bio: of bullhead Cottus gobio populations in the rivers of central e generally not as coarse as other sites selected for the species, ny rivers in this geographical area, but are suitable in patches sinuosity. The patchy cover from submerged macrophytes is also as a qualifying feature, but not a primary reason for site tlantic stream) crayfish (<i>Austropotamobius pallipes</i>) 	

River Mease (SAC)

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.14.2 Special Protection Area / RAMSAR Sites

A Special Protection Area (SPA) is the land classified under Directive 79/409 on the Conservation of Wild Birds.

There are no SPA's within a 10km radius of the site. The closest is Rutland Water SPA, which is located *c*.25.95km East-Southeast of the site boundary.

This is also the closest RAMSAR site to the Foyle Meats – Melton Mowbray facility. A Ramsar site is the land listed as a Wetland of International Importance under the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (the Ramsar Convention) 1973.

See Appendix B: Map P – Bird Directive Site (SPA)

Site Details	
Country	England
Latitude	52.64777778
Longitude	-0.665
SAC EU Code	UK9008051
Area (ha)	1555.24
Distance to Site	25.95km East-Southeast
General Site Character:	

Rutland Water (SPA)

Rutland Water SPA is a large public water supply reservoir created in 1975 and located within the county of Rutland in the central lowlands of England. The reservoir is by area the largest water body in England and by capacity, the second largest. Since 1975, it has developed into a major wetland of international importance for waterbirds, which are attracted to the large expanses of open water, lagoons, islands, mudflats, reedswamp, marsh, old meadows, pastures, scrub and mature woodland.

The site is located within the Leicestershire and Nottinghamshire Wolds National Character Area (NCA) where the reservoir forms is a significant feature in this rural, open, mixed farmland landscape of undulating hills and steep-sided valleys. The area is skirted by four main truck roads, A606, A6121, A6003 and A1, and there are two moderately sized market towns (Oakham in the west and Stamford in the east) which are the main cultural and economic centres.

The underlying geology is formed of gently dipping Jurassic rocks of limestone, sandstone and ironstone overlain by glacial tills which gives rise to moderately fertile soils composed of loams and clays. As a result, arable farming tends to dominate the plateaux tops while the steep sloping valley sides support more pasture. The prevalence of clays in the Gwash valley helped provide material for the construction of the dam which created Rutland Water.

Rutland Water SPA is also a popular tourist destination as the reservoir is an important venue for water sports, sailing and recreational angling, as well as being very popular with cyclists and walkers. Over 45% of the site is managed by the Leicestershire & Rutland Wildlife Trust and Anglian Water as a nature reserve.

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Consented changes to the water abstraction regime at Rutland Water have resulted in the provision of new wetland habitats for water birds. Most of this provision is within the existing boundary of the SPA but a proportion of the provision (lagoons 4, 5 and 7) is also provided outside of the SPA boundary (i.e. Habitats Regulations compensation). All these areas are being positively managed for water birds and will provide alternative habitats to off-set the negative impacts on the non-breeding water bird assemblage when the new water abstraction regime is implemented.

Qualifying species

- A051 Anas strepera; Gadwall (Non-breeding)
- A056 Anas clypeata; Northern Shoveler (Non-breeding)
- Waterbird assemblage

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

2.14.3 Sites of Special Scientific Interest (SSSI)

A Site of Special Scientific Interest (SSSI) is the land notified as an SSSI under the Wildlife and Countryside Act (1981), as amended. Sites notified under the 1949 Act only are not included in the Data set. SSSI are the finest sites for wildlife and natural features in England, supporting many characteristic, rare and endangered species, habitats and natural features.

In England, Sites of Special Scientific Interest (SSSIs) are designated by Natural England, a non-departmental public body, which is responsible for protecting England's natural environment. Designation as an SSSI gives legal protection to the most important wildlife and geological sites. As of January 2018, there are seventy-six SSSIs in the county of Leicestershire, fifty-seven of which are designated for their biology, twelve for their geology and seven for both criteria.

There are nineteen Geological Conservation Review sites, six Nature Conservation Review sites, one Special Area of Conservation, three National Nature Reserves, two are Common Land, and three contain Scheduled Monuments. One site is a Local Nature Reserve; thirteen are managed by the Leicestershire and Rutland Wildlife Trust, and one by the National Trust. The largest site is Bradgate Park and Cropston Reservoir at 399.3 hectares (987 acres). It has rocks dating to the Ediacaran period around 600 million years ago, and is very important for the study of Precambrian palaeontology. The smallest is Gipsy Lane Pit at 0.5 hectares (1.2 acres), which is important to mineralogists as it is rich in sulphides, some of which are unidentified.

There is only one SSSI within a 5.0km radius of the site. The closest is Twenty Acre Piece SSSI, which is located *c*.160m west of the site boundary.

Twenty Acre Piece (SSSI)

Twenty Acre Piece is an 8.1-hectare (20-acre) biological Site of Special Scientific Interest and registered common land east of Loughborough in Leicestershire.

This site has grassland, scrub and wood on poorly drained acidic clay. The woodland is mainly hawthorn, oak and ash, and there are diverse populations of breeding invertebrates and birds.

There is access to the site by a neglected and overgrown footpath

See Appendix B: Map S - Sites of Special Scientific Interest

2.14.4 CRoW Sites

The Countryside and Rights of Way Act 2000, known as the CRoW Act is a United Kingdom Act of Parliament, affecting England and Wales, which came into force on 30th November 2000.

The Act implements the so-called "right to roam" (also known as jus spatiandi) long sought by the Ramblers' Association and its predecessors, on certain upland and uncultivated areas of England and Wales. This element of the act was implemented in stages as definitive maps of different regions were produced. The act refers to areas of 'mountain, moor, heath and down' in addition to registered common land; not all uncultivated land is covered.

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Common land is owned by either a local council, privately or by the National Trust. Some common land has different rights, so it may be used for other activities other than walking and climbing (eg horse-riding).

One cannot:

- camp on common land without the owner's permission
- light a fire or have a barbecue
- hold a festival or other event without permission
- drive across it without permission unless you have the right to access your property.

Category A:

The closest designated land under CRoW, including Open Country and Registered Common Land is Twenty Acre Piece, *c*.160m to the west of the site boundary.

Category B:

The closest land designated as Conclusive Registered Common Land under the Countryside Rights of Way (CRoW) Act 2000 is also Twenty Acre Piece, *c*.160m to the west of the site boundary.

Category C:

The closest designated land subject to pre-existing public access rights that on CROW access land apply instead of the CROW rights is Loughborough Meadows, c.9.82km west of the site boundary. This area also falls under Category A and Category B.

See Appendix B: Map R - CRoW Sites

2.14.5 National Nature Reserve (NNR)

A National Nature Reserve (NNR) is the land declared under the National Parks and Access to the Countryside Act 1949 or Wildlife and Countryside Act (1981) as amended.

There are no NNR's within a 10km radius of the site. The closest is Charnwood Lodge NNR, which is located c.17.94km West-Southwest of the site boundary.

2.14.6 Air Quality Management Zones

Since December 1997, each local authority in the UK has been carrying out a review and assessment of air quality in their area. This involves measuring air pollution and trying to predict how it will change in the next few years. The aim of the review is to make sure that the national air quality objectives will be achieved throughout the UK by the relevant deadlines. These objectives have been put in place to protect people's health and the environment.

If a local authority finds any places where the objectives are not likely to be achieved, it must declare an Air Quality Management Area there.

AQMZ for NOx (as NO₂)

The Foyle Meats site is not within an AQMZ for nitrogen dioxide (as NO₂).

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

The closest management zone is Charnwood District (B), located c.125m west of the site boundary and contains the following:

AQMA	Description	Date Declared	Date Amended	Pollutants
Loughborough AQMA	Residential properties along the main arterial routes through Loughborough.	20/06/2001	29/11/2004	Nitrogen dioxide NO ₂
Syston AQMA	Residential properties along the main road through Syston	20/06/2001	29/11/2004	Nitrogen dioxide NO ₂

See Appendix B: Map T – AQMZ for NOx (as NO₂)

AQMZ for SO₂

The Foyle Meats site is not within an AQMZ for Sulphur dioxide (SO2).

The closest management zone is Charnwood District (B), located c.125m west of the site boundary and contains the following:

AQMA	Description	Date Declared	Date Amended	Pollutants
Great Central Railway AQMA	An area encompassing a number of properties in the vicinity of the Great Central Railway locomotive engineering shed in Loughborough.	29/11/2004	-	Sulphur dioxide SO2

See Appendix B: Map U – AQMZ for SO₂

2.15 **PROPOSED OPERATIONS**

The on-site operations that have been identified as potentially posing an environmental risk are detailed in the H1 Environmental Risk Assessment (Attachment B.2.5.A & B.2.5.B). This also outlines measures to prevent, or mitigate where necessary, the environmental risk posed by these operations.

See also the site's Environmental Management System Summary (Attachment B.2.1), the Fugitive and Accidental Emissions Control (Attachment B.3.7) for measures taken to ensure emissions not controlled by emission limits are accounted for and minimised.

2.16 CHEMICAL INVENTORY AND STORAGE TANKS

The inventory of chemicals stored and used during operations and onsite support processes along with their bunding arrangements is presented in Attachment B.2.3.C – Baseline Report. A bund and bunded structures integrity assessment, containing locations map, can be found in Attachment C.3.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

3.0 SITE RECONNAISSANCE

 Table 3.0: Findings of the Site Reconnaissance

 Baseline Vegetation data: A description of vegetation cover on the site and its immediate surroundings. The site contains areas of green areas: south-western corner, located within the site security fence – 4,073 M², eastern boundary, located outside of the site security fencing – 4,489 M². 	Details of any visual stress (including discolouration, die-back) on vegetation on site and in surrounding areas. No visible signs of contamination, stress, vegetation die-back or discolouration were found within the site or near the site boundary.
 Baseline Surface water data: A description of any surface water features on site and in surrounding areas. No naturally occurring surface water features are present on site. Surface water drains were found to be in good condition. Surrounding surface water features cab be seen in Map L. 	Evidence of, films, turbidity or impoverished benthic communities. Not relevant as no surface water features exist on-site.
Baseline Pollution data: Any visual evidence of existing contamination. No visible evidence of existing contamination was found. No staining of hardstanding was found. Hardstanding was found to be in good condition, with signs of recent repairs.	Evidence of damage to pollution prevention measures. All Bunds and Bunded Structures passed visual inspection. See Attachment C.3 – Bund Integrity Report.
Evidence of any previous site activities with the potential to hinder the environmental condition of the site. None found.	Evidence of any on-site waste disposal. None found.

SCR SUPPORTING INFORMATION Foyle Meats, Six Hills, Melton Mowbray, UK

List of storage Tanks and Bunds: Description of their Contents: Volume: Condition: nature & mode of fill: Draw line & points: Above or below ground: Nature, method & frequency of integrity testing (bunded): Nature of their bunds: See Attachment C.3 – Bund Integrity Assessment	Spill Kits: There are multiple fully stocked spill kits strategically placed throughout the site.

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

4.0 **DISCUSSION OF RESULTS**

Using data from both the sources outlined in Section 2.1 and a site inspection, a description of the Foyle Meats – Melton Mowbray site, its geological and hydrogeological setting, its environmental setting, history of contamination and that of the surrounding region has been outlined. The H1 Environmental Risk Assessment, potential sources and receptors of polluting substances have been identified, along with all pollution prevention measures on the site, both proposed and currently in place.

5.0 CONCLUSION

The results of the desktop and reconnaissance phases of the study, when combined with the borehole logs, are deemed to be sufficient to accurately and reliably benchmark the initial condition of the site. Going forward, periodic analysis as required under permit will allow any impacts of the facility on the condition of the site to be tracked and acted upon where necessary.

The reconnaissance findings are consistent with the site's documented history. Sensitive receptors of pollution have been identified. One sensitive receptor is the Secondary (Undifferentiated) Superficial Aquifer on which the site is located. Additionally, a single SSSI protected site is within 2km of the site.

Using the 'source-pathway-receptor' model, potential sources of pollution have been identified: overflow, leakage or spillage events within the site.

The preliminary investigations to date suggest that it is likely that design protection measures can deal with the level of risk.

The operational control procedures designed prevent, mitigate or control fugitive emissions in order to prevent pollution occurring to respective receptors are outlined in the following attachments to this application:

- Attachment B.2.5 H1 Environmental Risk Assessment,
- Attachment B.3.2 Emissions to Atmosphere
- Attachment B.3.3 Emissions to Surface Water
- Attachment B.3.4 Effluent Transferred Off-Site
- Attachment B.3.5 BAT Conclusion Slaughterhouses & ABP Industries
- Attachment B.3.6 BAT Conclusion Food Drink & Milk Industries
- Attachment B.3.7 Fugitive and Accidental Emissions Control
- Attachment B.3.8.1 Odour Impact Assessment
- Attachment B.3.9 Noise Impact Assessment
- Attachment B.3.10 BAT Conclusion Energy Efficiency
- Attachment C.3 Bund Assessment

FOYLE MEATS, SIX HILLS, MELTON MOWBRAY, UK

6.0 **REFERENCES**

- British Geological Survey
 <u>http://mapapps.bgs.ac.uk/geologyofbritain/home.html</u>
- Catchment Data Search https://environment.data.gov.uk/catchment-planning/
- Soar Abstraction Licensing Strategy (February 2013) <u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachme</u> <u>nt_data/file/291399/LIT_2646_3c9ca3.pdf</u>
- Environment Agency Check for Drinking Water Safeguard Zones and NVZs <u>https://environment.data.gov.uk/farmers/</u>
- European Environment Agency. Natura 2000 Protected Sites. http://natura2000.eea.europa.eu/#
- European Environment Agency. Catchment Data Explorer https://environment.data.gov.uk/catchment-planning/
- Environmental Permitting (England and Wales) Regulations 2016 http://www.legislation.gov.uk/uksi/2016/1154/contents/made
- magic.defra.gov.uk http://magic.defra.gov.uk/MagicMap.aspx
- The National Library of Scotland's Archived Ordnance Survey Maps http://maps.nls.uk/geo/explore/#zoom=13&lat=53.6823&lon=-1.5885&layers=1&b=1
- Department of Environmental, Food & Rural Affairs AQMA Interactive Map <u>https://uk-air.defra.gov.uk/aqma/maps</u>
- Environmental Agency Public Register https://environment.data.gov.uk/public-register/view/index
- Historic England https://historicengland.org.uk/listing/the-list/map-search?clearresults=True
- Joint Nature Conservation Committee <u>https://jncc.gov.uk/</u>

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APPENDIX A

- GEOLOGY AND HYDROGEOLOGY MAPS -





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Notes - Boundary of Premises LIAS GROUP - MUDSTONE, SILTSTONE, LIMESTONE AND SANDSTONE TRIASSIC ROCKS (UNDIFFERENTIATED) -MUDSTONE, SILTSTONE AND SANDSTONE TRIASSIC ROCKS (UNDIFFERENTIATED) -SANDSTONE AND CONGLOMERATE, INTERBEDDED UNNAMED EXTRUSIVE ROCKS. □ UNNAMED EXTRUSIVE ROCKS. NEOPROTEROZOIC - LAVA AND TUFF. □ MILLSTONE GRIT GROUP [SEE ALSO MIGR]-MUDSTONE. SILTSTONE AND SANDSTONE UNNAMED IGNEOUS INTRUSION, ORDOVICIAN TO SILURIAN - FELSIC-ROCK Project Title: MAP B.1 D **BEDROCK GEOLOGY** 1:625,00 SCALE Client Name: Asterday Hill Foy PANTHE ENVIRONMENTAL SOLUTIONS LTD UNITS 3 & 4 INNOVATION CENTRE GREEN ROAD CARLOW R93 W248 TELE: 059 91 34222 MOBILE: 087 851 9284 EMAIL:info@pantherwms.com WEB: www.pantherwms.com Drawing St Scale: Datum Ren Drawn: Checked: Drawing Nu Revisio Approv RI Date ©This drawing or its contents must not be reproduced for any purpose without written permission. It is to be used only for the purpose for which it is supplied.



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Notes - Boundary of Premises SIX HILLS LANE Listed Building Scheduled Monument Project Title: MAP I LISTED STRUCTURES 1.75Km Client Nam A46 Fou PANTHE All Saints' Church ENVIRONMENTAL SOLUTIONS LTD UNITS 3 & 4 INNOVATION CENTRE GREEN ROAD CARLOW R93 W248 TELE: 059 91 34222 MOBILE: 087 851 9284 EMAIL:info@pantherwms.com WEB: www.pantherwms.com Drawing State Report Scale: Datum: Drawn: Checke Drawing N Revision Approved MAIN STREET R1 Date 06/202 ©This drawing or its contents must not be reproduced for any purpose without written permission. It is to be used only for the purpose for which it is supplied.









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Notes Ruddington - Boundary of Premises Owthorpe manton-on-the-Wolds - Catchment Area Bradmore Keyworth Stanton-on-the-W Gotham Kinou Bunny Hickling Widmerpor Project Title: MAP O West Lesk KINGSTON BROOK Neth CATCHMENT hton Broug Client Name: Bonington Old Dalby Wintton Foyl Wymeswold Soar Prestwoid rimston Burton on the Wolds D PANTHER Walton on the Ragdale ENVIRONMENTAL Weld SOLUTIONS LTD UNITS 3 & 4 INNOVATION CENTRE GREEN ROAD CARLOW R93 W248 TELE: 059 91 34222 MOBILE: 087 851 9284 EMAIL:info@pantherwms.com WEB: www.pantherwms.com Drawing Sta Scale: Woodthorpe Barrow upon Report Drawing Nur Datum: Drawn: Checked: Hoby Seagrave Nanpantan NR Revis Approved Dat RI ©This drawing or its contents must not be reproduced Racherby for any purpose without written permission. It is to be used only for the purpose for which it is supplied.

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APPENDIX B

- DESIGNATED SITES -









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APPENDIX C

- HISTORICAL LAND USE MAPS -









