SITE CONDITION REPORT

For full details, see H5 *SCR guide for applicants* v2.0 4 August 2008

COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION

DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7

AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10; & SUBMIT WITH YOUR SURRENDER APPLICATION.

1.0 SITE DETAILS	
Name of the applicant	Cobb Europe Ltd
Activity address	Barn Farm Fakenham Road Great Witchingham Norfolk NR9 5QS
National grid reference	TM 08740 18766[6]

Document reference and dates for Site Condition Report at permit application and surrender	November 2017

Document references for site plans (including location and boundaries)	From the original permit application: Site Location Plan, Site Layout Plan & Site Drainage Plans

Note:
In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form then you should submit the additional plan or plans with this site condition report.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	The site will cover approximately 2.5 hectares mostly concrete hardstanding for buildings, roadways and grassy areas.

Topography

Barn Farm is in a rural area approximately 800 m to the west-north-west of the village of Lenwade. The site is at an altitude of around 38 m, the surrounding land rises towards low hills to the west-north-west and falls gently towards the River Wensum valley to the south and south-east and towards the valley of a tributary to the River Wensum to the north-east.

The site setting is typically characteristic of the area described in the Natural England Landscape Character Assessment No 84 for Mid Norfolk[5]. A broadly flat, glacial till plateau dissected by river valleys which become more rolling within the Wensum valley to the west of Norwich. Small fast flowing chalk streams and biodiversity-rich, wide, lush river valleys with wooded valley slopes, including the internationally important chalk-fed River Wensum, within 230m south of the site. The river is especially rich in biodiversity with over 100 plant species and a diverse invertebrate fauna. Elsewhere surrounding land to the east, west and beyond the Fakenham Road north of the site is used for arable farming dominated by cereals and break-cropping of sugar beet and oilseed rape. The farmland is generally enclosed by hedgerows and winding tracks. There are areas of semi natural grasslands, naturalised quarry pits, deciduous woodland and pastures along the valley floor of the River Wensum to the south of the site. The ground within the site is gently sloping from north to south.

Geology

British Geological Survey's (BGS) Digital Geological Map[1] identified the site is underlain by Sheringham Cliffs Formation and white chalk bedrock. BGS records a borehole TG01NE47 drilled in 1953 at Sparham Hill showed bedrock to be chalk at 98 feet (30 metres). The Sheringham Cliffs Formation Superficial Deposits are undifferentiated: locally a chaotic arrangement of glacial deposits and till lenses. Glacial deposits comprise silt, clay, sand and gravel. The chalk is white, fine grained with nodular and tabular flint.

The borehole head works can still be seen outside of the installation near the main entrance on the neighbours land. There are no recollections of the borehole being used in recent years.

National Soil Resources Institute Maps[4] identified soil-scapes No.18 on the site, characterised by slowly permeable, seasonally wet, slightly acid but base rich loamy and clayey soils with impeded drainage.

Hydrogeology

Environment Agency Aquifer Maps[3] identifed the Sheringham Cliffs Formation Superficial Deposits underlying the site are classified as a Secondary (undifferentiated) Aquifer and the White Chalk bedrock as a Principal Aquifer.

Environment Agency defines the aquifer designations as follows:

- Principal Aquifer: These are layers of rock or drift deposits that have high intergranular and/or fracture permeability, where they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as a major aquifer.

- Secondary A: Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classed as minor aquifers.

- Secondary B: Predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

- Secondary undifferentiated: Have been assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristic of the rock type.

Environment Agency Groundwater Maps[2] identify the principal aquifer underlying the site as having high vulnerability.

Environment Agency defines the vulnerability designations as follows:

- High: Areas able to easily transmit pollution to groundwater. They are characterised by high leaching soils and the absence of low permeability superficial deposits.

- Medium: Areas that offer some groundwater protection. Intermediate between high and low vulnerability.

	• Low: Areas that have provided the greatest protection to groundwater from pollution. They are likely to be characterised by low leaching soils and/or the presence of low permeability superficial deposits. Environment Agency Maps[2] identified the site is located in a designated Drinking Water Safeguard Zone with respect to surface water. DWSZs are designated areas in which the use of certain substances must be carefully managed to prevent the pollution of raw water sources used to provide drinking water. The DWSZ here are Nos. SWSGZ1016 and SWSGZ1017 for Metaldehyde, a pesticide. The site is in a designated Nitrate Vulnerable Zone, as respect the White Chalk underlying the site. Land drains into nitrate polluted waters, or waters which could become polluted by nitrates if action is not taken. The site is not located in a Groundwater Source Protection Zone. **Flood risk** The Environment Agency Flood Map for Planning[2] identified the site is located in flood zone 1, an area with a low risk of flooding. A Flood Risk Assessment & Surface Water Drainage Strategy[7] was prepared by Plandescil Ltd Consulting Engineers to accompany a detailed planning application for the site. The assessment recognised the redevelopment will have a greater impermeable area and a greater amount of surface water runoff for the lifetime of the development, prior to mitigation. Conveyance filter drains were installed to collect surface water runoff from roofs and hardstanding which discharged into the under-drained swales on the eastern side of the site draining into the ditch on that side via orifice flow restrictions. Otherwise there are overland flows of surface water run-off from between the poultry house into the swales. **Sites for nature conservation** DEFRA MAGIC Maps[2] identified the nearest statutory designated sites for nature: • Norfolk Valley Fens (SAC) <10km • River Wensum (SAC) <10km • Booton Common (SSSI) <5km • Alderford Common (SSSI) <5km • River Wensum (SSSI) <5km • Hockering Wood (SSSI) <5km • Foxley Wood (SSSI) <5km • Sparham Wood (Ancient woodland) <2km No National Nature Reserves (NNR) or Local Nature Reserves (LNR) within 2km. There are off-site UK Priority Habitats for deciduous woodland including

	Walsis' Hill, being nearest within 200m south on the wooded valley slopes of the River Wensum. There are no designated sites or Priority Habitats within the site. Potential off-site effects of ammonia must be considered ahead of any changes in the number of places for chickens or operational management changes. Ammonia in the air may exert direct effects on the vegetation, or indirectly affect the ecosystem through deposition which causes both hyper-eutrophication (excess nitrogen enrichment) and acidification of soils.
Pollution history including: • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	**Pollution incidents:** None known. **Previous use or activity:** Used for rearing chickens intensively for many years. Ten dilapidated timber and corrugated sheet chicken houses and associated outbuildings, a brick and corrugated sheet barn and a bungalow were demolished for redevelopment of the site in 2015. A dirty water sump was emptied and removed during clearance. Erected eight new poultry houses purpose built for great grandparent chicken breeders, feed bins and weighing rooms, service crew building, administration block & egg store, a transfer building and relocated vehicular access, roadways and drainage within the site. **Potential polluting substances:** • Used poultry litter • Dirty wash water • Agricultural fuel oil • Biocides/disinfectants • Veterinary medicines **Pollution prevention measures:** Used poultry litter will not be stored on site. During cleaning the dirty water from all the houses is diverted into underground storage tanks for removal to prevent percolation of substances into the soil or groundwater. Disinfectant foot dips are emptied into the waste water storage tanks. Diesel will be stored in an integral day tank for the stand-by generator and any additional secure storage for fuel will be bunded. Veterinary medicines will not ordinarily be stored on the site, but where they are required their quantities shall be limited. Small quantities of disinfectant concentrate and other chemicals are stored in secure containers to prevent spillage and buildings.

Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	Applicants not aware of any historic contamination.
Baseline soil and groundwater reference data	Baseline soil and groundwater reference data beneath the site has not been obtained. The site has probably been historically used for farming then poultry housing for many years.
Supporting information	1. British Geological Survey [online] Available at http://mapapps.bgs.ac.uk/geologyofbritain [Accessed 23 November 2017] 2. DEFRA [online] Available at http://magic.defra.gov.uk/MagicMap.aspx [Accessed 23 November 2017] 3. Environment Agency [online] Available at http://maps.environment-agency.gov.uk/wiyby [Accessed 23 November 2017] 4. National Soil Resources Institute [online] Available at http://landis.org.uk/soilscapes [Accessed 23 November 2017] 5. Natural England [online] Available at http://publications.naturalengland.org.uk [Accessed 23 November 2017] 6. Ordnance Survey [online] Available at https://osmaps.ordnancesurvey.co.uk [Accessed 21 September 2017] 7. Plandescil Ltd Consulting Engineers; (2017); Flood Risk Assessment & Surface Water Drainage Strategy.

3.0 Permitted activities

Permitted activities	Rearing of poultry intensively in an installation with more than 40,000 places for poultry. Feed bins, weighing rooms, service crew building, administration block & egg store, transfer building and standby generator are directly associated activities. The working area where vehicles operate and the area surrounding the houses is laid with concrete. Dust deposited on the hard standing within the site is regularly swept up and disposed of. Feed is delivered in covered lorries and stored on site in packaged silos. Once the houses have been depopulated, litter is removed from the site in covered vehicles, either for supplying on to separately owned agricultural land for landspreading to confer agricultural benefit or to one of the local power stations. The houses and equipment are washed and disinfected ready for receiving the nearly point-of-lay pullets and cockerels. Underground tanks are installed to collect wash water. All the tanks will be periodically emptied by a registered carrier. Dead birds are removed from the houses daily and the numbers recorded. Carcasses are stored in covered bins until they are collected by an approved transporter. A package standby generator incorporates an integral day tank for diesel and secure bunded storage for any additional quantities. Small quantities of disinfectant concentrate and other chemicals are stored in secure containers and buildings. Domestic sewage from service crew building is treated

	in a package secondary treatment plant discharging via an underground pipe into an off-site ditch at the southwest side of the site. There is planned preventive maintenance including desludging by professional contractors.
Non-permitted activities undertaken	None.
Document references for: • plan showing activity layout; and • environmental risk assessment.	From the original permit application: Site Location Plan, Site Layout Plan & Site Drainage Plans and Appendix 11 – H1 Environmental risk assessment.

Note:

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as 'dangerous' under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

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4.0 Changes to the activity	
Have there been any changes to the activity boundary?	If yes, provide a plan showing the changes to the activity boundary
Have there been any changes to the permitted activities?	If yes, provide a description of the changes to the permitted activities
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	If yes, list of them
Checklist of supporting information	• Plan showing any changes to the boundary (where relevant) • Description of the changes to the permitted activities (where relevant) • List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)

5.0 Measures taken to protect land	
Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

6.0 Pollution incidents that may have had an impact on land, and their remediation	
Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

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7.0 Soil gas and water quality monitoring (where undertaken)	
Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
Checklist of supporting information	• Description of soil gas and/or water monitoring undertaken • Monitoring results (including graphs)

8.0 Decommissioning and removal of pollution risk	
Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.	
Checklist of supporting information	• Site closure plan • List of potential sources of pollution risk • Investigation and remediation reports (where relevant)

9.0 Reference data and remediation (where relevant)	
Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated. If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.	
Checklist of supporting information	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed) • Assessment of satisfactory state • Remediation and verification reports (where undertaken)

10.0 Statement of site condition
Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that: • the permitted activities have stopped • decommissioning is complete, and the pollution risk has been removed • the land is in a satisfactory condition.