



VALENCIA WASTE MANAGEMENT LTD

**FOXHALL LANDFILL, SUFFOLK - APPLICATION TO VARY PERMIT NUMBER
EPR/BW2943IG**

HABITATS RISK ASSESSMENT

OCTOBER 2023

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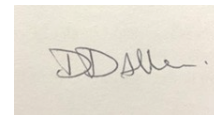
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1 INTRODUCTION

- 1.1.1 Wardell Armstrong have been instructed to prepare an application to vary the permit for Foxhall Landfill near to Brightwell in Suffolk. The Site is operated by Valencia Waste Management Ltd (Valencia).
- 1.1.2 The Site is currently permitted as a non-hazardous landfill, accepting non-hazardous and inert wastes. The intention is to add a front-end Material Recycling Facility, to treat waste to recover as much as possible, with less residual waste going to landfill. This variation forms part of Valencia's intention to divert waste from landfill and move waste up the waste hierarchy by recovering materials for recycling.
- 1.1.3 The MRF will be situated within the existing landfill permitted area, which is within 2km of Sites of Special Scientific Interest (SSSI), and within proximity of other designated sites, protected habitats and species. This document provides a summary of the protected habitats nearby and the manner in which these will be protected. Section 2 describes the site operations. Section 3 describes the protected habitats that are present in the area. Section 4 describes the measures that will be in place on the site to prevent emissions to air, water and land which protect the local human population and wildlife.

2 SITE OPERATIONS

- 2.1.1 The Site is currently permitted as a non-hazardous landfill, and Valencia are seeking to improve rates of recycling and recovery and so are seeking to vary their permit to include a Materials Recycling Facility (MRF). All waste treatment activities and storage will be carried out within the MRF building, which is situated within the existing landfill Site.
- 2.1.2 The purpose of the MRF will be to sort mixed waste to recover metals and wood for recycling elsewhere. The recoverable fractions will be separated from the mixed waste, and stored in dedicated bays. Residual wastes will either be placed into the landfill or sent off site for recovery.
- 2.1.3 The waste will pass through a conveyor line to allow the wastes to be manually separated by Site Operatives. The picking line is within an enclosed environment within the MRF building.
- 2.1.4 The building is provided with an impermeable reinforced concrete floor, ensuring that no leachate will enter soils under the site. The floor drains to a sump, which will capture any liquids, should a load with free liquid be received. The sump is also designed to capture fire water in the event of a fire.

3 PROTECTED HABITATS

- 3.1.1 An assessment of the site and proximal sensitive habitats has been carried out, using DEFRA's Magic Map Tool¹. Table 3.1 sets out the findings from the Magic Map assessment, listing the protected habitats, approximate distance and direction from the site and a brief description of the reason for the designation.
- 3.1.2 The Natural England website² provides information on SSSI's, which is summarised in Table 3.1. Other sources of information used to help describe the various sites have been referenced in Table 3.1.
- 3.1.3 There are nine Sites of Special Scientific Interest (SSSI) within 10km of the Site, including Deben Estuary which is also a designated RAMSAR and Special Protection Area (SPA) site. Ipswich Heaths SSSI is the closest designated site, which comprises of two areas, the closest lies 950m to the northwest.
- 3.1.4 Ferry Cliff and Ramsholt Cliff are SSSI's designated for geological interest. Ferry Cliff comprises of rocks of Palaeocene age which have yielded the earliest artiodactyls and ancestral horse in Europe. At Ramsholt Cliff the Coralline Crag can be seen resting on London Clay, and overstepped by Red Crag. The site is of particular interest because at the base of the Coralline Crag the phosphorite deposit can be seen, this being the only locality where the Coralline Crag phosphorite deposit can be examined. These geological sites are unlikely to be vulnerable to emissions from the Site, especially as the distance from the Site is in excess of 5km.
- 3.1.5 There are important sites, especially for birds, within the vicinity of the Site. New Bourn Springs (SSSI), Deben Estuary (SSSI, RAMSAR and SPA), and Stour and Orwell Estuaries (SSSI, RAMSAR and SPA) support broad ranges of birds, including endangered species such as Redshank, Pintail, Turnstone, Scaup, Curlew and Lapwing.
- 3.1.6 Priority Habitat Inventory habitats comprising of grassland, woodland and heathland are present in relatively small discrete areas around the site. The closest area of each type of species identified is provided in Table 3.1 with a brief description of the habitat. The closest of these being deciduous woodland, which is 260m to the southeast of the site.

¹ <https://magic.defra.gov.uk/magicmap.aspx>

² <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

3.1.7 The MRF lies within the current landfill footprint and does not impose directly on any protected habitat.

Table 3.1: Wildlife Sites		
Receptor	Reason for Designation	Distance and Direction from MRF
Ipswich Heaths (SSSI -2 units)	Diverse heathland, containing areas of heather heath, acid grassland, bracken and gorse scrub. Habitats of particular value for butterflies.	950m, northwest (closest unit)
New Bourn Springs (SSSI)	Rich and varied flora, diversity of habitats attracting good populations of breeding and migratory birds	1.7km, east
Waldringfield Pit (SSSI)	Geological interest	1.8km, northeast
Mill Stream (LNR)	Supports a range of habitats including ponds, stream, wet fen, wildflower grassland, willow scrub and ancient oak trees ³ .	3.5km, east
Deben Estuary (SSSI, Ramsar, SPA)	SSSI supports Waders, Wildfowl, supports large areas of saltmarsh and nationally scarce plant species. Designated SPA ⁴ supporting Brent Goose and Pied Avocet. Designated RAMSAR ⁵ supporting nationally and internationally important flora and fauna.	4km, east
Nacton Meadows (SSSI, LWS))	Rare fen-meadow, usually found in the western parts of Britain.	4km, southwest
Sandlings (LNR)	Heathland which has undergone restoration since the 1980s ⁶ .	4km, east
Bixley Heath (SSSI, LNR)	Designated as both a SSSI and LNR. Important heathland which is present with a scarce swamp vegetation. Presence of these two habitats within a single site is particularly rare in Suffolk Sandlings.	4.5km, east
Ramsholt Cliff (SSSI)	Geological Interest	5.3km, east
Stour and Orwell Estuaries (SPA, RAMSAR, SSSI)	Stour Estuary has a number of other designations, including AONB, LNR ⁷ , RAMSAR, SPA. SSSI: Nationally important habitat for 13 species of wintering waterfowl and three species of autumn passage. National importance for coastal saltmarsh, sheltered muddy shores, two scarce marine invertebrates and a vascular scarce plant assemblage. The estuary includes three important geological sites. SPA: Supporting a range of threatened birds including Redshank, Pintail, Turnstone, Scaup, Curlew, Lapwing ⁸ .	5.4km, south west

³ <https://web.archive.org/web/20170820224632/http://rushmerestandrew.onesuffolk.net/health-and-leisure/local-nature-reserves/mill-stream-local-nature-reserve/>

⁴ <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9009261.pdf>

⁵ <https://jncc.gov.uk/jncc-assets/RIS/UK11017.pdf>

⁶ <https://www.suffolkwildlifetrust.org/nature-reserves/sandlings-heaths-forest>

⁷ <https://www.rspb.org.uk/reserves-and-events/reserves-a-z/stour-estuary/>

⁸ <https://jncc.gov.uk/jncc-assets/SPA-N2K/UK9009121.pdf>

Table 3.1: Wildlife Sites

Receptor	Reason for Designation	Distance and Direction from MRF
	RAMSAR : wetland of international importance, comprising extensive mudflats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. Habitat supporting wetland birds in the non-breeding season and supports wintering and passage wildfowl and waders. The site also holds several nationally scarce plants and British Red Data Book invertebrates ⁹ .	
Ferry Cliff (SSSI)	Geological interest	5.6km, northeast
Priority Protected Habitats		
Deciduous woodland (multiple units nearby)	Woodland growing on full range of soil conditions ¹⁰ .	260m, southeast (closest unit)
Coastal and Floodplain Grazing Mash	Pasture or meadow with ditches which maintain the water levels, which are especially rich in plants and invertebrates. Grazing Marshes important for breeding waders ¹¹ .	700m, southeast
Lowland meadows	Species rich meadow ¹² .	640m, southwest
Purple Moor Grass and Rush Pasture	Grassland supporting a variety of flowers found with purple moor-grass and sharp-flowered rush. Scrub is common and the pasture is often bordered by hedgerows. ¹³	745m, southwest
Wood pasture and parkland	Mosaic habitats valued for their trees, plants and animals that they support. ¹⁴	1.4km, west
Curlew, Lapwing	Site is within 100m priority area for Countryside Stewardship measures addressing Curlew habitat issues, and within the priority area for Lapwing ¹⁵ .	Within stewardship area or within 100m

⁹ <https://jncc.gov.uk/jncc-assets/RIS/UK11067.pdf>

¹⁰ <https://data.jncc.gov.uk/data/2829ce47-1ca5-41e7-bc1a-871c1cc0b3ae/UKBAP-BAPHabitats-30-LowlandMixedDecWood.pdf>

¹¹ <https://data.jncc.gov.uk/data/82b0af67-d19a-4a89-b987-9dba73be1272/UKBAP-BAPHabitats-07-CoastFloodGrazingMarsh.pdf>

¹² <https://data.jncc.gov.uk/data/f0553254-1d47-474a-98e5-37fa163a28b5/UKBAP-BAPHabitats-29-Lowland-Meadows.pdf>

¹³ <https://data.jncc.gov.uk/data/6fe22f18-fff7-4974-b333-03b0ad819b88/UKBAP-BAPHabitats-43-PurpleMoorGrass.pdf>

¹⁴ <https://data.jncc.gov.uk/data/2829ce47-1ca5-41e7-bc1a-871c1cc0b3ae/UKBAP-BAPHabitats-65-WoodPastureParkland-2011.pdf>

¹⁵ Information held on Magic Map

4 CONTROL MEASURES

4.1 Contaminated Water

- 4.1.1 The protected habitats may be vulnerable to toxic contamination or eutrophication via chemicals leaching from the waste and dispersing via surface water or groundwater. To prevent this from happening, all waste will be unloaded, stored, treated and loaded into vehicles inside the building.
- 4.1.2 The building roof and walls will prevent rainwater from entering the waste and will minimise any free liquid that may run-off.
- 4.1.3 Should any leachate arise, the building is provided with an impermeable concrete floor which will form an effective barrier and prevent leachate escaping the Site. A sump will be provided and any run-off from the waste will be directed to this sump, from where it can be safely collected and disposed of.
- 4.1.4 In case of a fire, additional storage will be provided by a sleeping policeman at the site entrance. Any firewater coming into contact with waste will run to the sump. Should the sump become full, the sleeping policeman across the doorway will ensure that any firewater is held on the building floor. Following a fire, this water can be then removed by tanker.
- 4.1.5 Any diesel or oils kept on site for the operation of site plant will be stored in appropriate tanks or drums and will be provided with bunding to allow secondary containment. Such bunding will be designed to hold 110% of the contents of the largest vessel within the bund so as to ensure that nothing will escape in the event of a leak or a spill.
- 4.1.6 Measures are therefore in place to prevent contaminated water leaving the site.

4.2 Litter

- 4.2.1 Litter can pose a danger to wildlife and it is important that it is contained.
- 4.2.2 To prevent litter leaving the site, waste will be delivered and removed in enclosed or sheeted vehicles.
- 4.2.3 Vehicles will unload inside the building. All waste storage and treatment will also take place inside the building. The operation will therefore be protected from the wind and any litter should be contained.

4.2.4 The building door will be kept closed as far as possible to prevent fugitive emissions of litter.

4.2.5 The site will be inspected on a daily basis and any litter will be collected and returned to the appropriate waste storage bay inside the building.

4.3 Dust

4.3.1 There may be a risk of dust arising from the treatment of waste. Dust can cause smothering of vegetation if uncontrolled. To minimise dust emissions the main control is for waste to be unloaded and treated inside the building. As far as possible the doors will be kept closed, to provide a high level of containment for any dust.

4.3.2 All site plant will be maintained and serviced in line with the manufacturer's recommendations to prevent excessive emissions. Waste treatment comprises manual picking and will not generate any significant dust.

4.3.3 Vehicles entering and leaving the site must be enclosed or sheeted to prevent windblown litter or dust. Vehicles will be checked before leaving the site and must use the wheel wash where appropriate to prevent dust and mud being tracked out of the site.

4.3.4 The site roads will be properly maintained and swept as necessary. In addition, a 10 mile an hour speed limit will be imposed so as to minimise the potential for raising dust settled on the road.

4.3.5 A water supply is available on site and will be utilised where necessary to damp down dust areas of the site.

4.4 Fire and Smoke

4.4.1 The MRF has a Fire Prevention Plan prepared in line with Environment Agency Guidance. The site is provided with suitable firewalls and the size of waste stockpiles will be limited.

4.4.2 Wastes will be turned round on a first in first out basis and will not be stored on site for more than 72 hours before treatment, limiting the chances for self-heating. Waste will be removed from site on a regular basis with all residual waste taken off site within 72 hours.

4.4.3 The site will be fitted with a fire detection system and a deluge fire suppression system using water cannon. The fire suppression system can be triggered manually or

automatically, so that it will operate out of hours if the detection system picks up indications of a fire.

- 4.4.4 Good housekeeping will be employed to ensure that dust and debris do not build up on hot surfaces or anywhere where they may pose a fire hazard. Mobile plant will be parked at least 6m away from the waste inside the building.
- 4.4.5 A fire watch will be undertaken at the end of each working day and during and after any hot works (for example, welding) to ensure that no embers are present.
- 4.4.6 The measures in place will help prevent fires and prevent the spread of fire, should one occur, limiting the potential for fire or some damage to receptors nearby.

4.5 Noise

- 4.5.1 Some equipment (such as picking conveyor and trommel) will be installed at the site which has potential to generate noise. However, the building will provide a degree of attenuation. Given the proximity of the existing landfill and nearby asphalt plant, the changes are not expected to generate any significant disturbance above that already present.

5 SUMMARY

- 5.1.1 Valencia is varying their permit to allow the installation of some new equipment to sort waste. Overall, this will have a positive wider environmental benefit, allowing more waste to be sorted for recycling or recovery and reducing waste to landfill.
- 5.1.2 There are a number of protected habitats around the site, however, those with statutory protection are some distance away, the closest being Ipswich Heath SSSI located 950m away to the northwest of the site. There are a number of BAP priority habitats which lie closer to the MRF, with the closest being deciduous woodland lying 260m to the southeast of the site.
- 5.1.3 The Site has a Dust Management Plan and Fire Prevention Plan in place. It is also provided with appropriate impermeable surfacing and sealed drainage to prevent pollution spreading via soils or groundwater. Good housekeeping procedures will be in place to minimise the risks of dust and litter.
- 5.1.4 Given that the MRF comprises of a building, located with a road to the north and the east, and the landfill and asphalt plant to the west. The changes to the activities are not expected to have a significant impact on protected habitats.

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