wardell-armstrong.com

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

VALENCIA WASTE MANAGEMENT LTD

APPLICATION TO VARY PERMIT NUMBER EPR/BV4517IM

HABITATS RISK ASSESSMENT

APRIL 2023

wardell armstrong

Wardell Armstrong
Sir Henry Doulton House, Forge Lane, Etruria, Stoke-on-Trent, ST1 5BD, United Kingdom
Telephone: +44 (0)1782 276 700 www.wardell-armstrong.com

DATE ISSUED:	**APRIL 2023**
JOB NUMBER:	**ST20075**
REPORT NUMBER:	**M007**
VERSION:	**V0.1**
STATUS:	**FINAL**

VALENCIA WASTE MANAGEMENT LTD

APPLICATION TO VARY PERMIT NUMBER EPR/BV4517IM

HABITATS RISK ASSESSMENT

APRIL 2023

PREPARED BY:

Alison Cook Technical Director

APPROVED BY:

Andy Belton Technical Director

CONTENTS

1 INTRODUCTION

1.1.1 Wardell Armstrong have been appointed to prepare an application to vary the permit for Masons Landfill at Great Blakenham near Ipswich. The site is operated by Valencia Waste Management Ltd (Valencia) under permit number EPR/BV4517IM.

1.1.2 The existing landfill is permitted to accept non-hazardous commercial, industrial and household waste as well as having a separate cell for asbestos.

1.1.3 Valencia is seeking to move waste up the waste hierarchy by treating mixed non-hazardous waste arriving at the landfill to recover metals, plastic and wood for recycling. The waste will be further treated to remove non-combustible material before it is sent off site for energy recovery. The residual waste will be used in landfill engineering or will be placed in the landfill.

1.1.4 No asbestos will be treated. The measures in place for the safe disposal of asbestos into a dedicated cell within the landfill will continue as currently permitted.

1.1.5 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 and so protect the local human population and wildlife.

2 SITE OPERATIONS

2.1.1 The site is currently permitted as a non-hazardous landfill with a specialist cell for the acceptance of asbestos waste. Valencia is seeking to improve rates of recycling and recovery and so are seeking variation of the permit to include a Materials Recycling Facility (MRF).

2.1.2 The purpose of the MRF will be to sort mixed waste to recover ferrous and non-ferrous metal, wood and plastic for recycling elsewhere. Waste will undergo an initial shred where necessary to present a material that is less than 300mm across to the recycling plant.

2.1.3 The waste will pass through a trommel to separate it into three separate waste streams. The fine material will be stored in a dedicated bay for use as landfill cover or to be disposed of in the landfill. The other waste streams will pass through various pieces of sorting equipment to generate non-ferrous metal, ferrous metal, wood and

plastic for recycling and light fraction comprising the most combustible waste for use as RDF. The sorting process will also generate a heavy fraction comprising glass, stone and similar materials.

2.1.4 The heavy faction will be used for access roads on the landfill or for landfill cover. The RDF will be sent to an R1 compliant energy from waste facility.

2.1.5 All of the sorting machinery and waste storage will be housed in a suitable building to contain any emissions.

3 PROTECTED HABITATS

3.1.1 There is one Special Protection Area within 10km of the site. A very small part of the Stour and Orwell Estuary SPA and Ramsar site lies 9.75km to the southeast. The Estuary includes areas of saltmarsh and mudflats which are an important overwintering area for a number of birds, including hen harrier, black tailed godwit, dunlin, grey plover, ringed plover, pintail, redshank, shelduck and turnstone (Gov.UK Fact Sheet for Stour and Orwell Estuary). Because the SPA is almost 10km away and a large part of the Town of Ispwich, including industrial areas, lies between the site and the SPA it is not expected that the new MRF will have any impact.

3.1.2 There are two Sites of Special Scientific Interest close to the site. The Little Blakenham Pit lies approximately 900m to the southwest. Meanwhile Great Blakenham Pit, which is made up of three distinct units, lies around 200m to the southeast, 720m to the north and 1,100m to the northwest.

3.1.3 Great Blakenham Pit is of geological interest with exposed sediment and sands from the early and middle Pleistocene period. These are particularly important for understanding the glacial history of southern Britain (Natural England Citation). However, they are unlikely to be vulnerable to emissions from the site.

3.1.4 The Little Blakenham Pit is a former chalk working with abandoned lime kilns and a tunnel remaining on site as a result of these works. The site is one of few examples of chalk grassland in the area and it supports a wide range of flora including several species of orchid. Of more importance, the tunnel provides a large roost for hibernating bats. It is known that at least five species of bat use the tunnel in this way. (Natural England Citation)

3.1.5 There are also a large number of County Wildlife Sites within 2km of the site, with a range of priority habitats represented, including ancient woodland, deciduous woodland, good quality semi improved grassland and lowland calcareous grassland.

3.1.6 The closest of these lies just to the south of the wider landfill site with lowland calcareous grassland approximately 50m south of the MRF and deciduous woodland around 170m to the south.

3.1.7 Further detail of the County Wildlife Sites has been provided by Suffolk Biodiversity Information Service and is presented in Table 3.1.

3.1.8 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	Approximate Distance and Direction
Stour and Orwell Ramsar Site	Overwintering waterfowl and hen harrier	9.8km southeast
Stour and Orwell Special Protection Area	Overwintering waterfowl and hen harrier	9.8km southeast
Little Blakenham Pit SSSI	Chalkland flora and important bat roost	900m southwest
Great Blakenham Pit SSSI (3 units)	Geological interest	200m southeast 720m northwest and 1100m northwest
Great Blakenham Pit County Wildlife Site	Chalk grassland which is species rich and attracts butterflies. Scrub which provides nesting areas. Raptors regular visitors.	50m south
Great Blakenham Church Yard	Species rich grassland with some rare plant species present	900m northeast
Shrubland Park (small area of the park within 2km)	Planted mixed woodland with glades and rides including both calcareous and acid grassland species. Good range of birds and important for insects, particularly beetles, with several rare species recorded	1.8km northwest
Hogfield Grove	Small woodland with oak, ash, field maple and hazel some uncommon plant species present	720m southwest

Table 3.1 Wildlife Sites		
Receptor	**Reason for Designation**	**Approximate Distance and Direction**
Barham Pits	Flooded gravel pits important area for wildfowl and stopover for osprey, common tern and common sandpiper	990m northeast
Cubitts Pit	Remnant chalk grassland noted for a large population of roman snails.	1.5km south
Nut Tree Cottage Meadow	Species rich grassland typical of chalky boulder clay with thick hedgerows. Provides habitat for butterflies.	1.35km southwest
Little Pendles	Private nature reserve with diverse habitat including woodland, grassland, scrub and hedgerows. Has sunny slopes and some shadier, damper areas and therefore a diverse range of species. Protected butterflies recorded including white letter hair streak, green hair streak and small heath.	1.8km northwest
RNR 119,RNR 144 and RNR165	These roadside nature reserves support respectively, man orchid, pyramidal orchid and tower mustard	1.4km southwest, 1.3km southeast and 1.8km east
Baylham Churchyard	Important plant assemblage, typical of neutral lowland hay meadow. Also contains hedgerow and tree belt.	1.93km northwest
Suffolk Water Park	Disused gravel pit now used for fishing, walking and bird watching. Important feeding, roosting and nesting areas for water birds.	1.3km southeast
Great Wood	Ancient Woodland	850m northeast
Valley Lodge Meadow	Species rich grassland priority habitat which is surrounded by a native hedge which gives shelter to small birds, invertebrates and mammals.	1.17km southwest
Column Field Upper Quarry	Former quarry where sand and gravel overlie the chalk with some exposed faces remaining. With a mix of grassland ponds and scrub it is an important habitat for birds, including skylark, bull finch, linnet, reed bunting, meadow pipit, snipe, redshank and jack snipe. Also provides habitat for grass snake, great crested newt and a wide range of wasps, including several rare species.	540m west at closest point.

Table 3.1 Wildlife Sites		
Receptor	**Reason for Designation**	**Approximate Distance and Direction**
River Gipping (Sections)	Good coarse fishery, stretches have a diverse emergent fringe which provides shelter/nesting for a range of water birds. Some uncommon plants present.	1.2km east

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 240 cubic metre 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 the fire this water can be 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 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 vehicles, open vehicles must be sheeted.

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.

4.3.3 The 3-way separator (large screener) is fitted with local air extraction which will direct air via a dust filter. This discharges air back inside the building. Where light materials leave the 3-way separator a spray bar is provided to damp down dust.

4.3.4 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.

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

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

4.4 Fire and Smoke

4.4.1 The Materials Recycling Facility has a Fire Prevention Plan prepared in line with the Environment Agency's guidance. The site is provided with suitable firewalls and the size of waste stockpiles will be limited.

4.4.2 Waste will be turned round on a first in first out basis and will not be stored on site for more than 24 hours before treatment, limiting the chances for self-heating. Waste will be removed from site on a regular basis with all residual waste and RDF 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 firewatch will be undertaken at the end of each working day and during and after any hot works (eg 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 smoke damage to receptors nearby.

4.5 Noise

4.5.1 Some new equipment will be installed at the site. This has the potential to generate noise. However, the building will provide a degree of attenuation. Given the proximity of the existing landfill and nearby fabrication shop and scrap yard, 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 new equipment to sort waste. Overall, this will have a positive environmental benefit, allowing more waste to be sorted for recycling or energy 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 Stour and Orwell Estuary SPA is

almost 10km away and the Little Blakenham Pit SSSI is around 900m from the proposed materials recycling facility. The Great Blakenham Pit SSSI lies closer to the site but is of geological interest and is unlikely to be sensitive to dust, litter or noise.

5.1.3 A number of BAP priority habitats lie closer to the MRF with the closest being around 50m to the south.

5.1.4 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.

5.1.5 Given that that the site is in an industrial area with the existing landfill to the north, industrial properties to the east and a commercial and industrial development to the south, the changes to the activities on site are not expected to have a significant impact on protected habitats.

wardell-armstrong.com

STOKE-ON-TRENT
Sir Henry Doulton House
Forge Lane
Etruria
Stoke-on-Trent
ST1 5BD
Tel: +44 (0)1782 276 700

BIRMINGHAM
Two Devon Way
Longbridge Technology Park
Longbridge
Birmingham
B31 2TS
Tel: +44 (0)121 580 0909

BOLTON
41-50 Futura Park
Aspinall Way
Middlebrook
Bolton
BL6 6SU
Tel: +44 (0)1204 227 227

BRISTOL
Temple Studios
Temple Gate
Redcliffe
Bristol
BS1 6QA
Tel: +44 (0)117 203 4477

BURY ST EDMUNDS
Armstrong House
Lamdin Road
Bury St Edmunds
Suffolk
IP32 6NU
Tel: +44 (0)1284 765 210

CARDIFF
Tudor House
16 Cathedral Road
Cardiff
CF11 9LJ
Tel: +44 (0)292 072 9191

CARLISLE
Marconi Road
Burgh Road Industrial Estate
Carlisle
Cumbria
CA2 7NA
Tel: +44 (0)1228 550 575

EDINBURGH
Great Michael House
14 Links Place
Edinburgh
EH6 7EZ
Tel: +44 (0)131 555 3311

GLASGOW
24 St Vincent Place
Glasgow
G1 2EU
Tel: +44 (0)141 428 4499

LEEDS
36 Park Row
Leeds
LS1 5JL
Tel: +44 (0)113 831 5533

LONDON
Third Floor
46 Chancery Lane
London
WC2A 1JE
Tel: +44 (0)207 242 3243

NEWCASTLE UPON TYNE
City Quadrant
11 Waterloo Square
Newcastle upon Tyne
NE1 4DP
Tel: +44 (0)191 232 0943

TRURO
Baldhu House
Wheal Jane Earth Science Park
Baldhu
Truro
TR3 6EH
Tel: +44 (0)187 256 0738

International office:

ALMATY
29/6 Satpaev Avenue
Hyatt Regency Hotel
Office Tower
Almaty
Kazakhstan
050040
Tel: +7(727) 334 1310

wardell armstrong