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VALENCIA WASTE MANAGEMENT LTD

HEATHFIELD WTS VARIATION APPLICATION (EPR/CB3909CW)

ENVIRONMENTAL RISK ASSESSMENT

MARCH 2024

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ENVIRONMENTAL RISK ASSESSMENT

MARCH 2024

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1 INTRODUCTION

1.1.1 Wardell Armstrong has been appointed to prepare an application to vary the permit for the Heathfield Household Waste Transfer Station, Pioneer Yard, John Acres Land, Fosterville, Devon, TQ12 3GP. The site is operated by Roseland Heathfield Ltd (Valencia) under permit number EPR/CB3909CW.

1.1.2 The site is currently permitted for the importation of non-hazardous skip waste (construction, demolition and excavation waste and commercial/industrial waste such as wood, plastic, soil, hardcore, glass and pottery) which will then be sorted for recycling.

1.1.3 Valencia is seeking to prevent recyclable and recoverable wastes from going to disposal, in accordance with the principles of the waste hierarchy. The variation will allow mixed non-hazardous waste arriving at the adjacent landfill to be first treated to recover metals, wood and plastics for recycling and to remove non-combustible material to prepare the combustible wastes for energy recovery off-site.

1.1.4 The residual non-combustible waste will be utilised in landfill engineering or will be placed in the landfill. The site is located next to Valencia's Heathfield Landfill, John Acres Lane, Fosterville, Sandygate, Devon, TQ12 3GP.

1.1.5 The variation also seeks to extend the Permit Boundary of the Site as shown on drawing ECL.9983.D01.004.

1.1.6 This report assesses the risks associated with the proposed activities, identifies the proximal sensitive receptors and describes the control methods in place to minimise the identified risks so as not to cause harm to people or the environment.

2 SITE SETTING AND RECEPTORS

2.1.1 The Heathfield WTS is located at Pioneer Yard, approximately 1km north of Higher Sandygate, Newton Abbot, TQ12 3GP. The site is centred on National Grid Reference (NGR) SX 86155 76011, south of the Heathfield landfill site.

2.1.2 The land surrounding the site is predominantly agricultural with significant quarrying works in the vicinity if the site. The landfill area extends north from the WTS building, with the land beyond being agriculture and interspersed woodland to the north.

2.1.3 To the south of the site is Preston Manor works and Clay Quarry and to the east is Newbridge Clay Works.

2.1.4 The nearest residential properties are in Fosterville, namely Fosterville Cottage and Fosterville Lodge some 230m northeast of the site. To the east of Fosterville is Babcombe Copse Landfill, which was operated under Waste Management Licence WML21595. Sandygate Landfill is located to the south of the site reference and is listed under reference EAHLD34342. Both landfills are historical and not currently operational.

2.1.5 A search of Magic Maps by DEFRA[1], showed that there is one statutory designated site within 1km of the site boundary, Southacre Clay Pits Site of Special Scientific Interest. This SSSI has been designated due to the geological strata that has been bared during the quarrying process and is of geological value. This is not an ecological receptor.

2.1.6 There are no Special Areas of Conservation, Ramsar sites, Special Protection Areas or Local/National Nature Reserves within 1km of the site.

2.1.7 Within 2km of the site there are two SSSIs (including the aforementioned Southacre Clay Pits Site), with one at Brock's Farm, a lowland grassland area of ecological value 1.5km to the west. There is a SAC 1.7km north of the site, the South Hams SAC. This SAC is of ecological value, with dry heaths, orchid sites and greater horseshoe bat populations. There are a number of immediate semi-improved grassland and deciduous woodland habitats surrounding the site, with an ancient woodland (Sandslade Copse) at the border of the 1km Site radius.

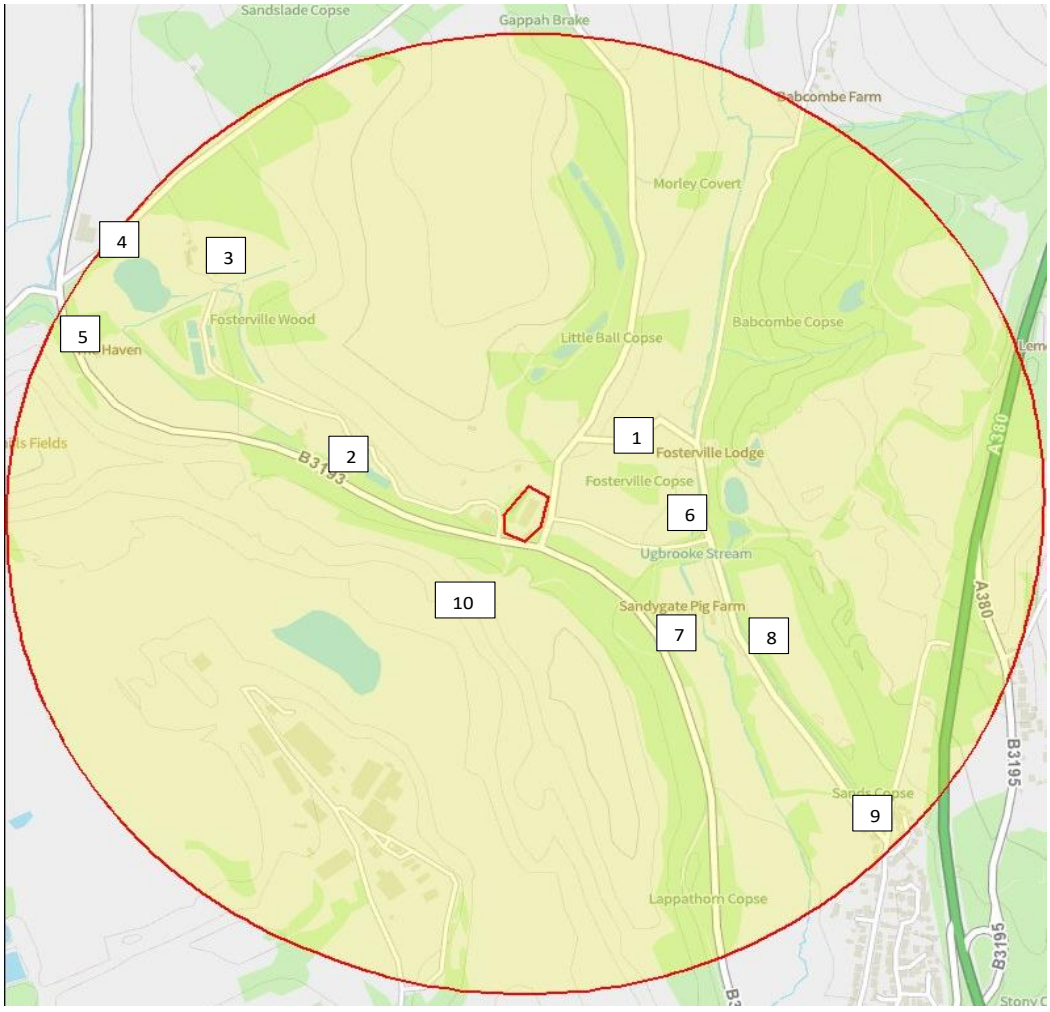
2.1.8 Table 2.1, below, sets out the receptors within 1km of the site in greater detail.

[1] https://magic.defra.gov.uk/magicmap.aspx

Table 2.1: Sensitive Receptors within 1km of the Site					
No.	**Receptor**	**Receptor Type**	**Distance from Proposed Permit Boundary**	**Direction from Site**	**Location Relative to Prevailing Wind**
1	Properties at Fosterville*	Residential	210m	NE	
2	Fosterville Building Materials	Commercial	340m	W	
3	Gilpin Demolition Group	Industrial	740m	NW	
4	Mason Kings Depot	Commercial	1000m	NW	
5	The Haven	Residential	880m	NW	
6	Ugbrooke Stream	Surface Water	300m	E	
7	Sandygate Pig Farm	Commercial/Residential	340m	SE	
8	RD Johns Foodservice Depot	Commercial	590m	SE	
9	Properties On Woodlands	Residential	950m	SE	
10	Sibelco Preston Manor Quarry Works	Industrial	170m	S	

*Distance to the residential receptor at it's closest point has been used as a proxy for the wider residential area at increased distance from the site

Figure 1 – Potentially Sensitive Receptor Locations (1km Radius)



3 RISK ASSESSMENT

3.1.1 The main risks from the MRF activity to the identified receptors will be emissions of dust, odour, litter and noise. The activities will be undertaken with environmental protection as a priority, ensuring that effective control measures are in place to prevent harm to human health and the local environment.

3.1.2 Table 3.1 below identifies the potential environmental risks that may arise from operations at the MRF and considers which receptors may be impacted by the risk, and pathways. The risk assessment shows how these risks are minimised by preventing the hazard at source or by providing measures to break the pathway and prevent pollution migrating towards receptors.

3.1.3 The activities will be undertaken with environmental protection as a priority, in accordance with Best Available Techniques and utilising Appropriate Measures, ensuring that effective control measures are in place to prevent harm to human health and the local environment. A dedicated building with roller shutter doors will house the activities, ensuring effective reduction in emissions of dust, litter, noise and odour.

3.1.4 Waste will be dealt with on a first in first out basis and will be turned round within 72 hours to minimise the risks of odour and vermin. The site will be kept tidy and will be inspected on a daily basis to make sure that no pollution is detected. Any significant emissions of dust, odour, litter or noise will be investigated and remedied.

3.1.5 Staff will be trained to understand the potential environmental risks associated with the site and their role in managing those risks. An induction will also be provided for contractors, so that they are aware of any environmental requirements.

3.1.6 It is noted that the permit states "*The Site is not located in an environmentally sensitive area, apart from the presence of a Site of Special Scientific Interest (SSSI) within approximately 200 m of the Site. The SSSI has been designated on the basis of the geology which is associated with an operational quarry currently being mined and therefore is not considered to be sensitive.*"

3.1.7 As the site is not located in a sensitive area the variation is unlikely to have any impact on potentially sensitive receptors. Specific management plans have been produced for dust and odour.

3.1.8 With regards to noise the site is located adjacent to an operational landfill and several operational quarries, hence the changes at the site are unlikely to have a significant impact on the surroundings.

Table 3.1: Risk Assessment							
Hazard	**Receptor**	**Pathway**	**Consequence**	**Exposure Probability**	**Overall risk**	**Mitigation Measures**	**Residual Risk**
Litter	Local wildlife, local residents, local businesses	Windblown	Detriment to the amenity of the local area. Potential harm to wildlife. Nuisance	Medium	Low	All vehicles carrying waste to the MRF to be enclosed or sheeted. Waste for treatment will be unloaded inside MRF building Waste will be stored and treated inside the building which will have roller shutter doors. Any litter to be collected daily and placed in the appropriate bay inside the building.	Very Low
Dust	Local wildlife, local residents, local businesses	Windblown	Nuisance. Potential harm to health. Potential harm to wildlife.	Medium	Medium	Sorting and screening carried out inside MRF building. Site roads properly maintained and swept as necessary. A road sweeper is available onsite and will be used as needed. Dusty stockpiles and site roads will be damped down if required in dry weather. Site roads will be kept clear of mud that may dry and cause dust. Plant properly maintained and serviced to minimise emissions. A site-specific Dust Management Plan has been developed for the site and will be kept under regular review, in accordance with the EMS. Localised dust abatement over high risk plant.	Very low

Table 3.1: Risk Assessment

Hazard	Receptor	Pathway	Consequence	Exposure Probability	Overall risk	Mitigation Measures	Residual Risk
Noise	Local residents and local businesses	Airborne	Nuisance	Medium	Low	Sorting and screening carried out inside MRF building. Plant and machinery will be properly maintained and serviced in accordance with the manufacturer's recommendations, and turned off when not in use. A site traffic plan will be implemented on the site to minimise reversing and idling.	Very low
Odour	Local residents and local businesses	Airborne	Nuisance	Medium	Low	Waste stored and treated inside building contained by roller shutter doors Waste treated on first in first out basis with potentially odorous waste removed within 72 hours of receipt.	Very low
Emissions to groundwater	Groundwater beneath the site	Infiltration through the ground	Pollution of groundwater	Medium	Low	Waste storage and treatment areas fitted with impermeable surfacing to prevent fugitive emissions. Waste is stored and treated inside the MRF building minimising rainwater infiltration. Measures in place to contain firewater. Liquids (e.g. oil for plant maintenance) stored in appropriate containers with secondary containment.	Very Low
Emissions to surface water	Local water courses potential to reach River Gipping.	Infiltration through the ground or run-off direct to surface	Pollution of surface water potential impact on protected species.	Medium	Low	Waste storage and treatment areas indoors and provided with impermeable surfacing. Sleeping policeman at entrance to prevent any liquid leaving the building. Liquids (e.g. oil for plant maintenance) stored in appropriate containers with secondary containment.	Very Low

Table 3.1: Risk Assessment

Hazard	Receptor	Pathway	Consequence	Exposure Probability	Overall risk	Mitigation Measures	Residual Risk
		water / drains from leakages					
Emission of nitrogen oxides to air	Local residents and workers	Airborne	Harm to human health	Medium	Low	Plant serviced and maintained in accordance with manufacturer's recommendations. Compliance with NRMM regulations. Where plant is replaced, lower emissions models chosen where practicable.	Very Low
Fire	Local residents or workers	Through the air	Smoke poses a potential health risk	Medium	Medium	Waste to be stored in bays with fire resistant bay walls and 1m headroom to minimise risk of fire spreading. Where stored in containers each will be accessible for fire fighting purposes Quantity of flammable waste in line with EA Fire Prevention Plan guidance, waste turned round in 72 hours to avoid self-heating. Good housekeeping with fire watch at end of day and in case of hot works. Fire detection and suppression systems fitted in building. Fire prevention Plan in place.	Very Low
Fire water	Groundwater beneath the site and local water courses.	Infiltration through soil or surface	Pollution of groundwater or surface water	Medium	Medium	The site is provided with impermeable surfacing and sealed drainage. Ability to store water in footprint of sealed building floor.	Very Low

Table 3.1: Risk Assessment							
Hazard	**Receptor**	**Pathway**	**Consequence**	**Exposure Probability**	**Overall risk**	**Mitigation Measures**	**Residual Risk**
		water run-off					
Plant breakdown	Local residents or workers or groundwater and surface water.	Air and /or water pollution depending on nature of breakdown	Noise or pollution as result of breakdown.	Medium	Low	Preventative maintenance programme in place to ensure all plant and infrastructure is inspected, serviced and maintained. Damaged plant or infrastructure taken out of service until repaired by a competent person. Waste treatment inside building with impermeable pavement to provide containment. Staff training. Only competent staff to operate machinery.	Very Low

4 HABITATS RISK ASSESSMENT

4.1.1 There are several areas of Deciduous woodland in close proximity to the site that are classified as Priority Habitat in the Priority Habitat Inventory. An area of Semi-Improved Grassland is located to the east of the site but this is classified as non-priority habitat.

Table 4.1: Habitat Receptors within 1km of the Site

Habitat	Distance from Proposed Permit Boundary	Direction from Site
Good quality semi-improved grassland	20m	E
Deciduous Woodland*	22m	S
Deciduous Woodland*	200m	N
Deciduous Woodland*	580m	W
Sandslade Copse- Ancient Woodland	950m	NW

*Acts as a proxy for all deciduous woodland in this direction at a greater distance from the site boundary

4.1.2 Within 2km of the site is Brock's Farm SSSI, a lowland grassland area of ecological value 1.5km to the west.

4.1.3 There is a Special Area of Conservation 1.7km north of the site, comprised of the South Hams SAC. The South Hams SAC is of ecological value, with dry heaths, orchid sites and greater horseshoe bat populations.

4.2 Control Measures

4.2.1 Both the SSSI and the SAC are over a kilometre away from the site and it is unlikely that they will be affected by any fugitive emissions from the site. Potential pollutants resulting from an accident or pollution incident would likely dissipate before reaching the habitat.

4.2.2 Dust can cause smothering of vegetation if uncontrolled. There are a number of preventative measures in place to prevent the escape of substances which could generate dust or particulates. These include operating inside a building with roller shutter doors, good housekeeping measures and lower waste tipping heights.

4.2.3 The Site will operate in accordance with a Dust Management Plan which sets out the mitigation measures and procedures for dealing with dust should it arise during the site activities.

4.2.4 There are no point source emissions (discharges) to water from the site activities. The MRF activities are contained within a building which has impermeable flooring and roller shutter doors.

4.2.5 Noise can cause disturbance to wildlife. The nearest ecological receptors deciduous woodlands which will provide habitat for a variety of wildlife. Given that the site is currently a permitted waste operation it is unlikely that the proposed operations will increase the noise levels on site.

4.2.6 the surrounding land use includes operational quarries and the Heathfield landfill site, therefore it is unlikely that significant noise will be generated from the MRF in comparison to the other industrial activities already undertaken in the immediate vicinity of the site.

5 CONCLUSION

5.1.1 Risk to nearby sensitive receptors will be effectively controlled though the implementation of the environmental control measures outlined in this plan.

5.1.2 Measures are in place to minimise the risk of emissions from the site with all operations contained inside a building. The site will operate in accordance with a written Environmental Management System including a Dust Management Plan, Fire Prevention Plan and Odour Management Plan.

5.1.3 The MRF will operate in line with guidance on the best available techniques for waste treatment.

5.1.4 The operation of the MRF is not expected to increase the risk over and above that already present in the immediate vicinity of the site due to the operation of the permitted landfill and currently permitted operations at the WTS.

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