EASTERN TRANSFER STATION, SITE CONDITION REPORT

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JER8369
Site Condition Report
V1
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Quality Management

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1 INTRODUCTION

1.1.1 This Site Condition Report (SCR) document supports the application for an environmental permit for the Eastern Transfer Station (ETS) at Westmill Road, Ware, Hertfordshire, SG12 0EL

1.2 Details of Waste Operation

1.2.1 The ETS will process up to 140,000 tonnes of waste per annum with a maximum storage capacity at any one time of 100,000 tonnes. The ETS will be used to bulk waste, segregated into different waste types, from the Waste Collection Authorities (WCA) and Recycling Centres.

1.2.2 The ETS will be capable of bulking a variety of waste types, including:

- Residual waste
- Clinical waste
- Organic waste (including Green waste and Food waste)
- Recyclable waste

1.2.3 A detailed description of the proposed ETS is provided in the main permit application document.

1.3 Scope of Site Condition Report

1.3.1 This SCR includes all operational and process areas for the ETS as indicated on the site layout plan at Drawing A.

1.3.2 The 'current condition,' for the purposes of this report, is also the ‘initial condition’ and refers to the condition of the site at the time of the environmental permit application.

1.3.3 This report seeks to fulfil the requirements of the EPR and has been prepared in accordance with EA guidance on the preparation of an SCR[1].

1.3.4 The objectives of this SCR are to:

- describe and record the condition of the land and groundwater at the time that the application for an Environmental Permit (EP) is submitted;
- identify the environmental setting and land pollution history of the site; and
- identify any activities that will be undertaken at the facility that may lead to pollution.

1.3.5 This SCR provides a point of reference at the start of the operations under the permit so that, in the event of the permit being surrendered, a decision can be made as to whether there has been any additional contamination of the site during the operation of the plant, and action can be taken if necessary to ensure that the condition of the land and groundwater are in a ‘satisfactory state’ when an application to surrender the permit is made.

1.3.6 Following the issue of the permit, the operator shall ensure that management systems are in place to implement the operational phase of the SCR (Section 4) and that the necessary data are collected to demonstrate that the land is in a ‘satisfactory state’ should the permit need to be surrendered.

1.3.7 Section 5 of the SCR shall be completed by the operator upon permit surrender to demonstrate that a ‘satisfactory state’ has been achieved.

[1]Environment Agency, “Horizontal Guidance: H5 Environmental Permitting Regulations: Site Condition Report – Guidance and Templates,” version 3.0, 2013

1.3.8 Measures that will be put in place to ensure that operation of the ETS does not give rise to land or groundwater pollution are described in the main permit application document.

1.3.9 The operator will implement an environmental management system (EMS). The management, monitoring and reporting requirements of the permit will be complied with, which will ensure that any environmental protection elements are implemented. Further details on the proposed EMS are provided within Section 2 of the main application document.

2 SITE CONDITION REPORT

2.1 Application Phase

2.1.1 This SCR, prepared in accordance with the Environment Agency (EA) Horizontal Guidance Note H5, contains information on the condition of the site from 2021, when the permit application for the ETS will be submitted to the EA. The site history prior to 2021 where known, has been reviewed as part of this SCR and commented on within this report.

2.2 Site Condition Report Summary

1.0 SITE DETAILS	
Name of the applicant	Hertfordshire County Council
Activity address	ETS, Westmill Road, Ware, Hertfordshire, SG12 0EL
National grid reference	TL 34182 15988
Site area (ha)	1.2 ha

Document reference and dates for Site Condition Report at permit application and surrender	• Application: JER8369 Site Condition Report, November 2021

Document references for site plans including: • Site location plan • Plan showing activities layout • Site drainage plan • Plan showing pollution prevention measures in place (including impermeable surfacing, interceptors and sumps) • Plan showing location of sensitive receptors including protected areas or sensitive habitats or species within 1 km of the site	See Drawings section of this SCR: • Site Layout (showing site layout including storage locations and installation boundary) (Drawing A) • Site Location Plan (Drawing B) • Site Drainage Plan (includes locations of interceptors) (Drawing C) • Sensitive Receptor Plan (Drawing D)

2.0 CONDITION OF THE LAND AT PERMIT ISSUE	
Environmental setting including: • geology • hydrogeology • surface waters (hydrology) • protected areas or sensitive habitats/species within 1 km • topography	Details of the environmental setting are provided in *sections 2.4 and 3.2 to 3.5* of this SCR.
Site Reconnaissance, to assess: • damage to existing pollution prevention measures • other potential migration pathways such as drains, service corridors and outfalls • evidence of visual / olfactory contamination including disturbed land, discoloured soil and/or water, distressed vegetation or absence where it might be expected, subsidence and above ground deposits • presence and condition of surface water features on site • ponding of surface water on site • land uses in the vicinity of the site	Site investigations have been undertaken across the ETS and RC site area. SLR Phase 1 and 2 (Appendix B) includes site walkover information. .
Pollution history including: • location, nature and extent of accidents, incidents, or direct discharges that may have affected the soil or groundwater • historical land-uses and associated contaminants	Pollution history details are provided in s*ection 3.6 to 3.7* of this SCR.
Evidence of historic contamination, for example historical site investigation, assessment, remediation and verification reports (where available)	Details of historical contamination near to the site are provided in s*ection 3.8* of this SCR.
Conceptual site model	N/A
Baseline soil and groundwater reference data	Details of previous ground investigations including baseline soil and groundwater data are provided in *section 3.9* of this SCR.
Supporting information	Source information identifying environmental setting and pollution incidents Historical Ordnance Survey plans (where provided) Historical investigation / assessment / remediation / verification reports Baseline soil and groundwater reference data

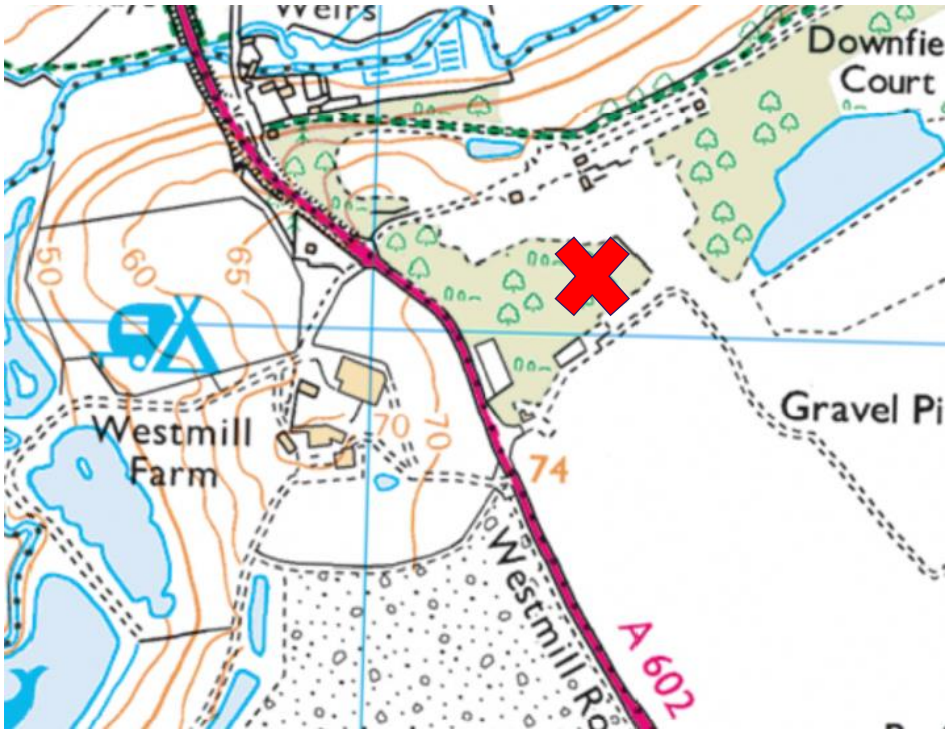
3.0 PERMITTED ACTIVITIES	
Permitted activities	Details of the proposed permitted activities are provided in *section 2.5* of this SCR
Non-permitted activities undertaken	Details of non-permitted activities are provided in *section 2.5.1* of this SCR
Document references for: • plan showing activity layout; and • environmental risk assessment.	A site location and boundary plan for the facility are shown on the following drawing: • Site Plan, Drawing A (showing site location, layout and installation boundary) • Environmental Risk Assessment in Appendix C of the main application document

2.3 Site Location

2.3.1 The site is approximately 1.2 ha and is located at Westmill Road, Ware, Hertfordshire, SG12 0EL. The site is centred at National Grid Reference TL 34182 15988. The site is located on a former landfill site approximately 2.5 km to the north west of Ware.

2.3.2 The location of the site is highlighted by the red X on the map in below:

Figure 2-1: Site Location



2.3.3 Ground levels across the site are variable and range from 65 m AOD to 72 m AOD. There are steep embankments on almost all sides of the site.

2.3.4 Historically the site was part of the gravel pit still present to the south of the site. This is noted on the 1946 mapping and then as disused on the 1977 – 1978 mapping. The site is noted on the Envirocheck report as a registered landfill site.

2.4 Surrounding Area and Sensitive Receptors

2.4.1 There are a number of small settlements surrounding the site, notably Tonwell to the north, Crouchfields to the west and Thundridge to the north-east. The centre of Ware is approximately 2.5 km to the south east.

2.4.2 The River Rib is approximately 200 m to the north of the site.

2.4.3 Westmill Landfill, operated by Biffa lies immediately to the east of the site. The wider surrounding area is predominantly agricultural.

2.4.4 There is only one statutory designated site within 1 km of the site. This is the Downfield Pit, Westmill SSSI which is approximately 600 m north east of the site. This site is designated for its geological interest rather than ecological value and is therefore unlikely to be affected by the permitted activities at the site. The site is within a nitrate vulnerable zone (NVZ).

2.5 Permitted Activities

2.5.1 The purpose of the ETS is to provide a central hub at which a range of local wastes collected by waste management contractor(s) on behalf of HCC can be consolidated and transferred in bulk to other facilities for appropriate treatment or disposal. The facility will provide suitable areas to segregate and store different waste streams for removal off-site.

2.5.2 A shredder will be utilised to shred bulky waste on site, such as furniture and mattresses. This will make the waste more manageable for offsite management. No more than 50 tonnes of waste will be shredded per day.

2.6 Non-permitted Activities Undertaken

2.6.1 The site includes office and welfare facilities.

2.7 Site Drainage

2.7.1 Water from three sources are collected separately at the site:

- Clean surface water run-off;
- Domestic foul water from welfare facilities;
- Wastewater from process areas.

2.7.2 Clean surface water run-off is collected from the following areas:

- impermeable surfaced car parking, hardstanding and site access roads will drain via an appropriately sized oil interceptor;
- impermeable building roof and canopy areas.

2.2 Surface water drainage runoff from the impermeable areas of the ETS will be discharged to the existing pumped surface water drainage system which serves the Recycling Centre (RC). This system discharges surface water via a pumping station and rising main to an existing highway drainage system on the A602 Westmill road, which ultimately discharges to the River Rib which lies 500m to the north-west of the site.

2.7.1 Disposal of domestic foul sewage generated from the welfare facilities will be via an on-site foul tank. The tank will be located to provide easy means of access for emptying. It will be fitted with a high level alarm to ensure the tank is emptied at appropriate intervals.

2.7.2 There are no process emissions to controlled waters from the installation.

2.7.3 Site drainage is shown on Drawing C.

3 CONDITION OF LAND AT PERMIT ISSUE

3.1 Environmental Setting

3.1.1 The following historic ground investigations have been undertaken at the site:

- SLR Phase I and Phase IIa Geo-environmental Assessment, Ref. 407.0034.00237, September 2007;
- Hyder Consulting Ltd Geo-environmental Assessment Report, Ref. 0001-UA004860-GDR-001, September 2013;
- Ramboll Ground Investigation Report and Ground Investigation: Contamination Interpretive Report, Ref. 6108927/GT/R02 and 6108927-1/ENV/R04, July 2015;
- RPS, Geotechnical Interpretative Report, Ref. HLEI47259, December 2016;
- RPS, Supplementary Phase 2 Site Investigation Report, Ref. 020027-RPS-SI-XX-RP-GT-0001, JER8391, July 2021

3.1.2 Information has been taken from these reports regarding the area of land relevant to the ETS site.

3.1.3 In addition, information has been taken from the British Geological Survey (BGS) Geology of Britain viewer and EA Groundwater maps.

3.2 Geology

3.2.1 The information reviewed indicates that typically the site is underlain by made ground overlaying (in sequence):

- Kesgrave Catchment Subgroup;
- Undifferentiated Lewes Nodular Chalk and Seaford Chalk Formation of the Upper Cretaceous.

3.2.2 A summary of the geological sequence encountered during 2015 Ramboll ground investigations at the site is detailed in Table 3-1 below:

Table 3-1: Summary of Geological Sequence

Stratum	Top Depth (mbgl)	Thickness Range (m)	Description
Made Ground	0.0	0.2 to 2.5	Dark brown, slightly silty sand and gravel of flint, asphalt, granite, glass, concrete and clinker. Frequent cobbles of asphalt
Landfill	0.0	2.8 to 9.5	Dark brown mottled orange clayey sand and gravel of flint, brick and concrete. Soft, dark grey, sandy gravelly clay with concrete. Inclusions of plastic, glass, metal, rubber, plastics, polythene bags, coal, ceramics asphalt; granite; clinker; decomposing organic material; ash; wood; bone; textiles and vehicle tyres.
Cohesive Deposit	0.4 to 4.5	0.5 to 2.1	Possibly comprising a former landfill liner system, soft to firm brown gravelly clay. Granular inclusions within the clay are described as angular to rounded flint and chalk.
Kesgrave Catchment Subgroup Granular	1.2 to 7.5	3.2 to 23.6	Light brown and brown, locally yellowish and greyish brown, locally silty and clayey sand and gravel of flint, locally chalk and rare quartzite. Varying cobble content.

Stratum	Top Depth (mbgl)	Thickness Range (m)	Description
Cohesive	5.2 to 14.2	0.25 to 2.5	Soft to very stiff, light brown, brown and grey, slightly sandy to sandy, gravelly clay. Gravel is predominantly of flint, locally sandstone and chalk.
Lewes Nodular / Seaford Chalk	11 to 24		Chalk recovered as soft to firm, white and cream, slightly sandy, slightly gravelly silt. Gravel is of low to medium density chalk

3.3 Hydrogeology

3.3.1 The Upper Chalk beneath the site is part of a regional aquifer that extends in all directions beneath the various landfills to the south, east and west and beneath the River Rib to the north. The EA classifies the Upper Chalk as a major aquifer with the overlying glacial gravels assigned intermediate leaching potential status. Major aquifers are exploited for abstraction of large quantities of water and may be important for local supplies and supplying base flow to streams.

Source Protection Zone

3.3.2 The site is situated within a Source Protection Zone 2.

3.4 Hydrology

3.4.1 The River Rib runs approximately 200 m to the north of the site. The River Lea runs approximately 1.9 km to the south of the site.

3.5 Topography

3.5.1 OS mapping indicates that the site is approximately 65-72 m AOD.

3.6 Environmental Data

Water Abstractions

3.6.1 There are records of four groundwater abstractions held by the EA within 1 km of the site. Details of these are provided in Table 3-2 below:

Table 3-2: Water Abstractions

Operator	Licence Number	Location	Distance from Site	Use
RMC Aggregates (Greater London) Ltd	29/38/04/0041	Westmill Quarry, Ware, Herts	134 m NW	Mineral washing, process water.
Poles Ltd	29/38/04/0060	Hanbury Manor, Thundridge, Ware	594 m E	Spray irrigation
Poles Ltd	29/38/04/0056	Hanbury Manor	595 m E	Spray irrigation
Poles Ltd	29/38/04/0077	Hanbury Manor Golf Course	750 m E	Spray irrigation – storage

Discharge Consents

3.6.2 There are four licensed discharge consents within 500 m of the study site. Details are provided in Table 3-3 below:

Table 3-3: Discharge Consents

Operator	Reference	Location	Distance from Site	Use
Mr DJ Vigus	CLCU.0096	Farm Cottages, The Homestead, Westmill Farm, Ware	374 m SW	Sewage discharge – final / treated effluent – to land / soakaway
Mr & Mrs H Thake	CLCU.0031	8/9 Westmill Cotts, Ware	310 m NW	Sewage discharge – final / treated effluent – to land
Mr A M Burns	CNTM.1264	Westmill Trout Farm, The Mills, Westmill Rd, Ware	319 m NW	Discharge of other matter – fish farm – to surface water (River Rib)
Downfield Court Residents Ltd	CNTW.0261	Downfield Farm, Off Poles Lane, Thundridge	477 m NE	Sewage discharge – final / treated effluent – to land / soakaway

Historic Landfill Sites

3.6.3 There are a number of overlapping historic landfill sites recorded immediately to the south and south east of the site on both sides of Westmill Road. There is an additional historic landfill to the north east at a location currently indicated to be a golf course. These are shown on Drawing E.

Active Landfill Sites

3.6.4 Biffa Waste Services Ltd hold an environmental permit for the landfill of household, commercial and industrial waste at Westmill Quarry immediately to the south of the site.

Waste Treatment or Disposal Sites

3.6.5 Other than those described above there are no other waste treatment or disposal sites listed on the EA public register within 1 km of the site. The RC site is the closest permitted waste site, it is situated adjacent to the site.

Installations

3.6.6 There are three installation permits within 1 km of the site, these are detailed in Table 3-4 below:

Table 3-4: Installations

Operator	Permit Number	Location	Distance from Site	Permit type
Biffa Waste Services Ltd	DP3431PC	Westmill Road, Ware, Hertfordshire, SG12 0ES	400 m	Disposal or recovery of hazardous and non-hazardous waste
GlaxoSmithKline Research & Development Limited	AP3631QN	David Jack Research Centre, Park Road, Ware, Herts, SG12 0DJ	700 m	Combustion; Any fuel greater than or equal to 50 MW
Glaxo Operations UK Limited	ZP3900PE	GlaxoSmithKline PSC Ware, Priory Street, Ware, Hertfordshire, SG12 0DP	800 m	Tranche B Specified Generator

Coal Authority Reports

3.6.7 A search using the Coal Authority website, indicated that, from the information currently available to the Coal Authority, the site is not located on a coal field. The search indicates that a coal mining search report is not recommended for the site.

COMAH

3.6.8 There are no COMAH sites recorded within 1 km of the site.

Radon

3.6.9 According to the National Radiological Protection Board's Radon Atlases of England, Wales and Scotland at the time of writing, the site is within the lower probability radon area with less than 1% of homes estimated to be at or above the action level.

Registered Radioactive Substances

3.6.10 There are no recorded registered radioactive substance users within 1 km of the site.

3.7 Pollution History

Pollution incidents

3.7.1 There are no pollution incidents listed on the EA Pollution Incident Register having an effect on land or water within 1 km of the site. The only incidents recorded relate to significant effects on air and are largely due to odour effects from landfill.

Historical land uses

3.7.2 Historical mapping is available from 1880 and a summary of uses since that time are given in Table 3-5 below:

Table 3-5: Historical Land Uses

Date	On site land use	Surrounding area land use
1880	Undeveloped agricultural land	An old gravel pit is indicated approximately 110 m to the (north) west of the site. Isolated farm and mill buildings are present to the north and north west.
1884	No significant changes	The old gravel pit to the north west is no longer indicated.
1898 – 99	A field boundary extends from the south west to the north east	Forest land from Downfield Wood extends to the north border. Westmill Plantation has established another boarder 100m north of the site and is a woodland. Previously open agricultural land to the north east has been planted with trees and forms part of Downfield Wood.
1923 – 25	No significant changes	Woodland is detailed immediately to the north as Warren Hill and Westmill Plantation.
1938	No significant changes	No significant changes.
1946	The site is shown as a gravel pit.	Land immediately to the south west of the site is indicated as gravel.
1960	The site is shown as a gravel pit.	Land immediately to the west and south west, beyond Westmill Road is indicated as gravel workings.

Date	On site land use	Surrounding area land use
1973 - 74	The site is identified as a disused pit with an access roadway off Westmill Road in the north western corner. A single structure is present at the entrance to the site. A track is also present along the northern edge of the site following the line of the old roadway noted on the site.	The boundaries of the pit extend beyond the south eastern boundary of the site indicating that the pit had been extended between 1960 and the time it ceased operation. A further gravel pit is detailed approximately 110 m to the south of the site. This pit is linked to the gravel processing works 65 m to the north of the site which contains hoppers, conveyors and an unspecified tank. Further gravel pits and workings are present 100 m to the north east of the site in the area that was previously Downfield Plantation. The pits and the processing works have replaced the majority of the Westmill Plantation and Downfield Wood. The area of gravel workings detailed in 1960 to the south west of the site, between Westmill Road and Westmill Farm, are no longer shown.
1977-1978	No significant changes	Further gravel pits are indicated beyond the southern boundary. South of Westmill Farm, a large area of slag heap or refuse has been indicated.
1993 – 94	No significant changes	The gravel pits to the east of Westmill Road are now shown as one merged area of workings. The conveyor detailed in 1977-1978, to the east of the site is no longer shown.
1999	Forest area has been removed	A large area to the south of the site (to the west of Westmill Road) is marked as a refuse or slag heap. A new water feature has developed approximately 200m (north) east of the site. A trout farm has been established north of the site, above the Westmill plantation.
2006	No significant changes	Land to the north east is marked as part of a large gravel pit. This extends to the main conveyor and gravel processing works 65 m north of the site.
2021	Majority of the site, excluded the centre and area surrounding the west boundary, grass land has developed. Non-coniferous trees are shown at the south border. The boundary from 2006 is no longer indicated.	The old gravel pit to the south is no longer indicated and has been replaced with rough grassland. There are buildings extending from directly west of the site to south. Roughly 400m south east, a track has been indicated. Along with a track directly above the north border. The old gravel works to the north east, has no longer been indicated and is now grass land with non-coniferous trees. The slag heap or refuse below the Westmill farm is now rough grassland. A golf course has been indicated south west of the site, directly below Westmill farm.

3.7.3 The site lies within an area that has historically been extensively quarried for sand and gravel and also used for waste disposal and these activities are continuing today on the land to the east and south.

3.7.4 The site itself is known to have been subject to gravel extraction and subsequently partially backfilled and used for waste disposal.

3.7.5 A historical landfill operated by Ware Rural District Council (known as Ware RDC Tip) is recorded on site in 1956. This is assumed to be the first date of operation. The waste deposited is recorded as commercial waste and liquid sludge.

3.7.6 The site was operated by Hertfordshire County Council as a landfill from approximately 1982 to 1984 and the last waste was deposited around 1984.

3.8 Evidence of historic contamination

3.8.1 As noted above the site is known to have been used as a landfill for various (non-inert) waste types between approximately 1956 and 1984. Precise records of volumes and waste types are not available. There is no evidence of formal capping of the landfill and there are no active management measures in place at the site.

3.9 Existing Site Investigation Data

3.9.1 As noted in section 3.1.1 above three separate ground investigations have been carried out at the site between 2007 and 2015. The two earlier investigations are summarised in the 2015 reports by Ramboll which are provided at **Appendix B**.

3.9.2 The 2015 ground investigation comprised the following:

a. 19 cable percussive boreholes installed to depths ranging from 9.2 mbgl to 5 mbgl;

b. 13 trial pits excavated across the site to depths ranging from 4 mbgl to 5 mbgl;

c. 6 post installation monitoring visits to interpret the ground / waste conditions beneath the site; and

d. Sampling and analysis of the soil quality to determine the potential extent of any contamination at the site.

3.9.3 The findings of the 2015 ground investigation are detailed in section 2 of the Ramboll Geo-environmental Interpretive Report at **Appendix B**. A summary is provided below.

Groundwater

3.9.4 Previous ground investigations had estimated that the groundwater table lay within the chalk with a general north to south hydraulic gradient. However, the 2015 ground investigation identified that the groundwater table lies within the Kesgrave Gravel Formation lying directly below the base of the landfill. The waste within the landfill is essentially dry, with perched pockets of water within the made ground.

Ground Gas

3.9.5 Previous ground gas monitoring recorded elevated concentrations of carbon dioxide within ground gas at the site but low flow rates. Methane was found at low concentrations within the boreholes. The overall classification for the site was calculated as ‘Characteristic Situation 2’.

3.9.6 The 2015 ground gas assessment confirmed the previous results. A summary of the ground gas monitoring results for the 2015 investigation is in Table 3-6 below:

Table 3-6: Ground Gas Monitoring Results

Gas Composition / Flow	Peak Range
Methane	0.00 %v/v to 2.40 %v/v
Carbon dioxide	0.20 %v/v to 14.70 %v/v
Oxygen	1.30 %v/v to 20.40 %v/v
Flow rate	0.70 l/hr to 2.30 l/hr
Overall characteristic situation	2

Soil Quality

3.9.7 Investigations in 2007 recorded widespread lead and benzo(a)pyrene occurrences in the soil. A 2013 investigation recorded chromium and benzo(a)pyrene occurrences within the made ground.

3.9.8 The 2015 investigation collected soil samples from across the site and compared the laboratory results to the Ramboll Generic Assessment Criteria for commercial and industrial end use.

3.9.9 The soil results indicated elevated concentrations within the made ground (ranging from depths of 0.2 mbgl to 5.0 mbgl) of:

- chromium;
- lead;
- total petroleum hydrocarbons (TPH);
- naphthalene;
- chrysene;
- benzo(b)fluoranthene;
- benzo(k)fluoranthene;
- indeno(123-cd)pyrene; and
- dibenzo(ah)anthracene

3.9.10 A summary of elevated concentrations of contaminants within the soil is provided at Table 3-7 below:

Table 3-7: Soil Concentrations

Determinant	Location	Depth (mbgl)	Strata	Result (mg/kg)	Ramboll GAC for commercial and industrial end use
Chromium	BH04	2.5	Made Ground	35	33*
	BH05	0.2		42	
	BH06	4.0		43	
	BH07	3.0		43	
	BH08	1.0		51	
	BH13	4.5 to 5.0		54	
	TP09	2.0		42	
		2.2		88	
	TP11	4.0		47	
	TP12	4.0		34	
	TP13	2.0		49	
Lead	BH06	4.0		2,800	2,330
	TP11	4.0		2,900	
	TP03	0.3		9,700	
TPH (C10 to C40)	TP03	0.3		110,000	9,700
Naphthalene				13,000	1,100
Chrysene				480	350
Benzo(b)fluoranthene				280	45
Benzo(k)fluoranthene				360	1,200
Indeno(123-cd)pyrene				170	510
Dibenzo(ah)anthracene				170	3.6

*The result used for chromium was for hexavalent chromium.

3.9.11 The locations of boreholes and trial pits for the 2015 investigation are shown on Drawing F.

Waste Profile

3.9.12 The 2015 investigation identified landfilled waste including: metallic objects; rubber; glass including whole bottles; brick; concrete; plastics including polythene bags fragments; coal; ceramics; asphalt; granite; clinker; decomposing organic material; ash; wood; bone; textiles and vehicle tyres. Previous investigations have included some WAC testing where some hazardous waste has been identified.

3.9.13 Results of the 2015 investigation were used to map out the depth of landfill material at the site. This is shown on Drawing G.

4 OPERATIONAL SITE CONDITION REPORT

4.1 Operational Phase

4.1.1 This SCR, prepared in accordance with the Environment Agency Horizontal Guidance Note H5, contains information on the condition of the site during the operational phase of the facility.

4.2 Site Condition Report Summary

4.0 CHANGES TO THE ACTIVITY	
Have there been any changes to the activity boundary?	
Have there been any 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?	
Checklist of supporting information	• Plan showing any changes to the boundary • 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

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)

5 SURRENDER SITE CONDITION REPORT

5.1.1 At permit surrender, the following sections of the SCR template (EPR H5) will be completed and submitted to the Environment Agency as part of the permit surrender application. Information that has been gathered over the lifetime of the Permit will be used to identify whether the land is in a satisfactory condition. If necessary, surrender reference data will be collected and remediation will be undertaken if required.

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.

6 CONCLUSIONS

6.1.1 RPS has prepared this SCR in support of the application to operate the ETS.

6.1.2 The site is underlain by a historic landfill site having previously been worked for gravel. The geology of the site is made ground overlaying Kesgrave Catchment Subgroup and Undifferentiated Lewes Nodular Chalk and Seaford Chalk Formation of the Upper Cretaceous.

6.1.3 The site is known to have been used for landfilling activities between approximately 1956 and 1984. Prior to this the site was worked for gravel. A small area of the site which is currently permitted had been used as a public refuse tip since approximately 1992. The only pollution incidents that have been recorded in the vicinity of the site relate to impacts to air and generally relate to landfill odour complaints.

6.1.4 Hazardous waste will not be accepted at the site and no hazardous substances will be stored at the site.

6.1.5 A number of ground investigations have taken place between 2007 and 2015. These have identified elevated concentrations of a number of contaminants in soils at the site which is in line with its previous use as a landfill site.

DRAWINGS

Drawing A Site Layout Plan

Drawing B Site Location Plan

Drawing C Site Drainage Plan

Drawing D Sensitive Receptors

Drawing E Historic Landfill Plan

Drawing F 2015 Borehole and Trial Pit Locations

Drawing G Depths of Landfilled Material

APPENDICES

Appendix A

Landmark Envirocheck Report

Appendix B

Ground Investigation Reports