Polyethylene Terephthalate Plastics Recycling Facility (PETPRF)
Site Condition Report

Client: Enviroo Project Company Limited

Ref No.: K0419-AYE-R-ENV-00008
Date: January 2026

Document control

Revision	Revision/ Review Date	Details of Issue	Authorised		
			Prepared By	Checked By	Approved By
00	July 2024	Issued	C Finney	J Baxter	J Baxter
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Content

Appendices

[1] Introduction

[1.1] Report Objectives

This Site Condition Report (SCR) has been produced by Ayesa on behalf of Enviroo Project Company Limited (the proposed Operator) in support of a permit application to operate a Plastic Recycling Facility (PRF).

This report has been produced in accordance with the Environment Agency H5 Site Condition Report Guidance (LIT 8001 Version 3.0 April 2013) using the H5 template[1] . The H5 SCR template contains 10 component parts grouped as follows

- Sections 1 to 3 relate to the site details and condition of the land at permit issue and what activities are undertaken under or outside the remit of that permit.
- Section 4 to 7 should detail changes to the activity or activity boundary e.g. use of hazardous substances not in the original application, description of measures taken to protect the land, pollution incidents that may have occurred and any monitoring carried out.
- Sections 8 to 10 cover the post-closure, pre-surrender phase including decommissioning of the facility, any monitoring data collected and remediation work required and a statement to confirm the activities have stopped, there is no pollution and the site is in a satisfactory condition.

The Operator is applying for a new bespoke permit and as such sections 1 to 3 have been completed. Section 4 to 10 are not applicable.

[2] Site Condition Report

[2.1] H5 Section 1

1.0 Site Details	
Name of the applicant	Enviroo Project Company Limited
Activity address	Plot 13 of Protos Resource Recovery Park located Enviroo Project Co., Marsh Lane, Ince, CH2 4FP
National grid reference	346508 376458

Document reference and dates for Site Condition Report at permit application and surrender	K0419-AYE-R-ENV-00009

[1] Environmental permitting: H5 Site condition report - GOV.UK (www.gov.uk)

[2.2] H5 Section 2

2.0 Condition of the land at permit issue	
Environmental setting including: geology hydrogeology surface waters	Phase I Desk Study undertaken by Grange GeoConsulting Limited dated July 2021 (Report Ref: R20077). Phase II Site Investigation undertaken on 14th and 18th June 2021 and presented in Report (Ref: R20077) dated August 2021. **Geology** No artificial or made ground evident from Envirocheck Report provided with the Phase I Desk Study. Site Investigation reported made ground at ground level to depths varying from 0.3 m to 1.4 m. The made ground comprised slightly gravelly, sandy clay with gravels of Mudstone, Brick and Sandstone. No evidence of contamination was noted within the Made Ground. The British Geological Survey (BGS) indicates the site is predominantly covered by surficial Tidal Flat Deposits, with Till, Diamicton, encroaching onto the western areas of the site. Bedrock of the Kinnerton Sandstone Formation, comprising sandstone, is recorded beneath the site. **Hydrogeology** The Kinnerton Sandstone Formation present on site is classified as a Principal Aquifer. The superficial deposits beneath the site are classified as a Secondary Aquifer (undifferentiated) which comprise permeable layers that can support local water supplies and may form an important source of base flow to rivers In this case the superficial deposits are peaty silty clays formed by the adjoining river system. The site is not located within a Source Protection Zone (SPZ). No SPZs are recorded within a 1km radius of the site. The closest groundwater abstractions are listed 781m north of the site at Shell Chemicals (UK) ltd off West central drain, New Ince Marshes, Cheshire. The license is currently revoked. **Hydrology** The Site is located adjacent to a number of surface water drains that form part of the wider Protos Ince Marsh Recovery Facility surface water management network. Water networks are present northwest of the Site and east of the site. The Manchester Ship Canal and River Mersey are located over 800 m from the Site. There are several smaller watercourses and a series of land drains around the site which are all tributaries of the River Mersey, these include Hoolpool Gutter, Hornsmill Brook and Marsh Lane Drains. The Hornsmill Brook flows into the Hoolpool Gutter which is siphoned under the Manchester ship canal and enters the River Mersey. The surrounding land drains all feed the Hoolpool Gutter and are discharged into the River Mersey. The network of land drainage channels are likely to be a series of sacrificial ditches that only carry water to the Hoolpool Gutter during storm events or periods of heavy rain fall. Any baseflow groundwater in this location is expected to be at least in part tidally influenced. According to the Groundsure Report, there are no licensed discharge consents to controlled waters.

<table>
<tr><td></td><td>The Flood Map for Planning identifies that the Site lies within a Flood Zone 3 which is defined as ‘Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding’2. The flood map for planning however identifies that the site benefits from flood defences and as such the probability of flooding is reduced. The most recent assessment of flood risk is contained within the Protos, Surface Water Management Plan dated 2018. The SWMP requires floor levels to be set at a minimum of 5.063 m AOD and access roads set no lower than 4.763 m AOD. The development platform level of the Site is to be set at 6.45 m AOD above the prescribed levels. It should also be noted that it is proposed to raise finished floor levels of the PRF building 150mm above the surrounding hard standing to ensure that overland flow of water during storm events does not flood the building.</td></tr>
<tr><td>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</td><td>Site History
The Groundsure Report provides information on the Site history.

<table>
<tr><th>Map date and Scale</th><th>Key on-site features</th><th>Key off-site features</th></tr>
<tr><td>1849 to 1938 (1:500, 1:2,500 and 1:10,560)</td><td>The site is illustrated to be undeveloped, with a hedgerow dissecting through the site, running north to south. The boundaries to the site are formed by neighbouring fields, and an unnamed road adjacent the northern boundary.</td><td>The surrounding areas to the site are dominated by fields, separated by hedgerows, small, wooded areas and streams. By 1896 the closest development to the site is Grinsome Farm, illustrated 100m northwest of the site. Birkenhead Railway is shown circa 650m south of the site, transecting east to west. The town of Elton is shown 1km south west of the site.</td></tr>
<tr><td>1965 to 1984 (1:2,500 and 1:10,560)</td><td>The site remains undeveloped.</td><td>The land surrounding the site remains predominantly occupied by fields. By 1965, several cooling towers are illustrated from 250m southwest and associated railway sidings, linking to the main railway line.</td></tr>
<tr><td>1991 to 2021 (1:2,500, 1:10,560</td><td>The site remains undeveloped.</td><td>By 1991 these works are labelled as Electricity Generation Site, with further cooling towers 250m west of the site. In the surrounding areas. From circa 100-1000m east of the site, an industrial</td></tr>
</table>

Potential Pollution
The site is not listed within the Envirocheck Report as being within an area that may be affected by coal mining activity.

The Kinnerton Sandstone Formation present on site is classified as a Principal Aquifer. The superficial deposits beneath the site ais classified as a Secondary Aquifer (undifferentiated) with a medium groundwater vulnerability.

The site is not located within a Source Protection Zone (SPZ). No SPZs are recorded within a 1km radius of the site.

The closest groundwater abstractions are listed 781m north of the site at Shell Chemicals (UK) ltd off West central drain, New Ince Marshes, Cheshire. The license is currently revoked.

There are no pollution incidents recorded within 500m of the Site. 5 pollution incidents to controlled waters reported over 500m from the Site.
The Site is not in a radon affected area.</td></tr>
</table>

	Three historic landfill sites recorded within 650m of the site boundary, the closest is 297m south of the site, at Ince Power Station. Deposited waste included industrial waste and liquid sludge. The first recorded input is dated 31st December 1960, the last input is not recorded. A fertiliser factory is located approximately 300m east of the site. Numerous historical and contemporary commercial and industrial operations surrounding the site include power generation facilities, recycling facilities and historical works.
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	No evidence presented in Phase I or Phase II Reports.
Baseline soil and groundwater reference data	Phase II Site Investigation undertaken on 14th and 18th June 2021 by Grange GeoConsulting Limited and presented in Report (Ref: R20077) dated August 2021. **Baseline soil** 6 window sample boreholes drilled to a maximum depth of 5 m bgl. 4 cable percussive boreholes drilled to a maximum depth of 20 m bgl. The following samples were taken by Grange GeoConsulting Ltd: • 4 No. soil samples from the Made Ground. • 5 No. soil samples from the Tidal Flat Deposits. • 1 No. soil samples from the weathered Kinnerton Sandstone Formation. All samples were scheduled for analysis for Arsenic (As), Cadmium (Cd), Hexavalent and Total Chromium (Cr II and VI), Copper (Cu), Lead (Pb), Nickel (Ni), Selenium (Se), Zinc (Zn), Total Cyanide, pH, Organic Matter, Asbestos Screen, Speciated Total Polycyclic Aromatic Hydrocarbons (PAHs), BTEX, MTBE and Speciated Total Petroleum Hydrocarbons (TPH) including WAC Testing. Laboratory data shows non-hazardous concentrations and no evidence of contamination. No asbestos detected in any samples. In addition to the totals testing, WS1 (0.8 mbgl – sandstone), WS4 (1.8 mbgl – sandstone) and WS5 (1.5 mbgl – tidal flat deposits) were tested for Waste Assessment Criteria (WAC). All samples passed inert WAC. The laboratory data is provided at Appendix F of the aforementioned report. As the area will be excavated so that the base can be laid, any contamination will be identified and removed from site to a permitted facility. The made ground from the Site is to be removed to facilitate construction of the concrete slab to include gas protection measures **Groundwater and gas** Groundwater level and ground gas monitoring was carried out in BH4, WS4 and WS5 on six occasions on 7th July, 14th, 21st, 28th and 4th August and 10th of August 2021. Methane detected on all occasions. Ground gas monitoring showed the Site as having medium potential for ground gas generation. The ground gas regime is considered to meet Characteristic Situation 2 (CS2). Based on these classifications, basic gas protection measures will be required. No groundwater quality data presented. Groundwater level varied between 0.64 m bgl to 2.03 m bgl.

Supporting information	Phase I Desk Study undertaken by Grange GeoConsulting Limited dated July 2021 (Report Ref: R20077). Phase II Site Investigation undertaken on 14th and 18th June 2021 and presented in Report (Ref: R20077) dated August 2021.

[2.3] H5 Section 3

3.0 Permitted activities	
Permitted activities	Enviroo propose to accept up to 35,000 tonnes per annum of plastic bales for processing comprising sorting, shredding, grinding, heating, washing and drying to create a plastic pellet product which meets end of waste criteria specifically food grade recycled PET (rPET) for the plastic manufacturing sector. Annual production of recycled plastic pellets is estimated at 17,500 tonnes. All activities will be confined within a portal framed modular build warehouse located on Site. The plastic bales used in the process will be purchased from PRFs pre-sorted to ensure high PET content and minimum contamination. The material will be subject to sorting, either at source or at the facility. The treatment includes screening and de-labelling, sorting and segregation, reduction in size and washing, flaking of PET material, drying and extrusion to a PET product. The treatment process produces a large amount of process water, which is primarily reused. The remaining process water is proposed to be treated on site at a water treatment plant (WwTP) prior to discharge to surface water. The WwTP will treat process effluent via the following techniques: • Raw wastewater screening • Inlet screening • Flow and quality balancing • DAF separation system • Membrane Biological Reactor (MBR) • Sludge dewatering for combing biological and DAF sludges All activities are proposed to be undertaken on an impermeable surface with sealed drainage. The activities to be applied for are detailed in the Application Report (Ref: K0419-AYE-R-ENV-00001).

	A hazardous chemicals register is attached as Appendix C. This addresses the stage 1-3 assessment of Directive 2010/75/EU on industrial emissions as requested by the Environment Agency.
Non-permitted activities undertaken	Not applicable.
Document references for: • plan showing activity layout; and • environmental risk assessment.	Site Layout Plan - drawing reference 210070-WDK-00-SI-DR-C-10C entitled Proposed Site Layout dated 13 December 2022 Sensitive Receptor Plan - K0419.1.003 Environmental Risk Assessment (reference: K0419-AYE-R-ENV-00002)

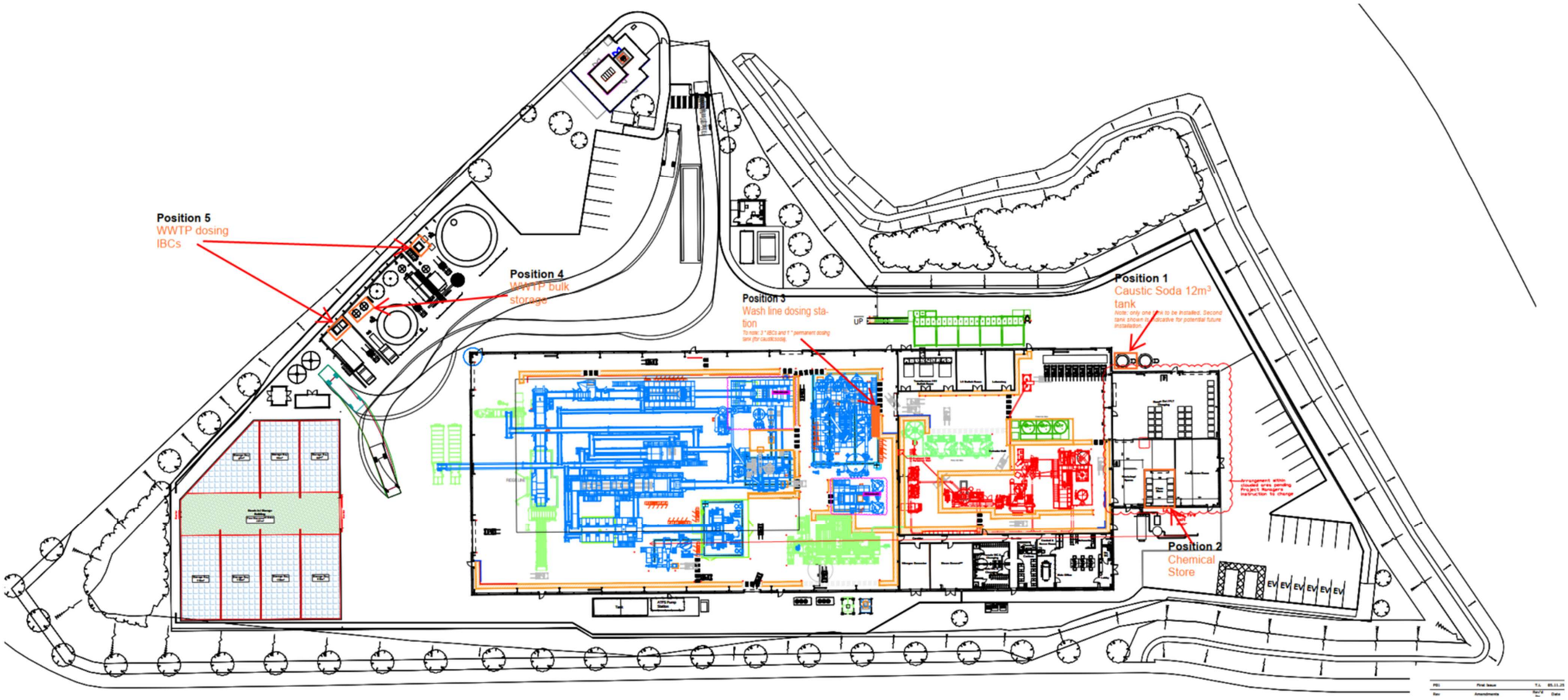
Appendix A – Ground Investigation Reports

Appendix B – Drawings

Appendix C – Hazardous Chemicals Register

Stage 1 Chemicals Handled	Stage 2 Chemical Characteristics and Toxicity						Stage 3 Site Specific Characteristics			Stage 4 Site Specific Risk
Substance	State S – Solid L- Liquid G – Gas	CAS No.	Hazardous Statement (CLP)	Hazardous Substance under Stage 2 Yes / No	Environmental fate and behaviour	Potential Pollution Risk	Estimated Quantity	Storage Arrangements	Delivery, storage and use details	Comments / Chemical of Concern
Caustic Soda 32%	L	1310-73-2	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage.	Yes	May cause adverse effects in the aquatic environment. The product is biodegradable. The product is not bioaccumulating.	Yes	13,000	• 12,000l bulk storage with integral bund (110%) at Position 1 (bulk storage) • 1,000l IBC with plastic bund (min 110% of a single IBC) at Position 3 (wash line dosing)	Wash line Sorema	Emissions unlikely when stored, but potential for spillage during delivery or refilling. Limited but controlled risk.
RP34 (detergent)	L	160875-66-1	H302 - Harmful if swallowed. H318 - Causes serious eye damage.	Yes	Not available	Yes	3,000	IBC with plastic bund (min 110% of a single IBC) • 2,000l at Position 2 (chemical store) • 1,000l at Position 3 (wash line dosing)	Wash line Sorema	No environmentally hazardous. None at quantities stored (IBC)
MASTER S4 (wetting agent & foam control)	L	Not listed	No known significant effects or critical hazards.	No	Not available	No	6,000	IBC with plastic bund (min 110% of a single IBC) • 5,000l at Position 2 (chemical store) • 1,000l at Position 3 (wash line dosing)	Wash line Sorema	No environmentally hazardous. None at quantities stored (IBC)
ANS HC (anti foam)	L	Not listed	No known significant effects or critical hazards.	No	Not available	No	2,000	IBC with plastic bund (min 110% of a single IBC) • 1,000l at Position 2 (chemical store) • 1,000l at Position 3 (wash line dosing)	Wash line Sorema	No environmentally hazardous. None at quantities stored (IBC)
Sulphuric Acid 35%	L	7732-18-5	H290 – corrosive to metals H314 – skin corrosion	Yes	The methods for determining the biological degradability are not applicable to inorganic substances. Bioaccumulation is not expected.	Yes	5,000	5,000l bulk storage at Position 4 (WwTP bulk storage)	Water treatment (Genco)	No environmentally hazardous. Emissions unlikely when stored, but potential for spillage during delivery or refilling. Limited but controlled risk.
Polyaluminium chloride hydroxide	L	1327-41-9	H290 – corrosive to metals H318 – serious eye damage	Yes	The methods for determining the biological degradability are not applicable to inorganic substances. Bioaccumulation is not expected. Bioaccumulation is unlikely. inorganic compound	Yes	5,000	5,000l bulk storage at Position 4 (WwTP bulk storage)	Water treatment (Genco)	No environmentally hazardous. Emissions unlikely when stored, but potential for spillage during delivery or refilling. Limited but controlled risk.
ACTIPOL DAM 3C5 (flocculant)	L	7631-99-4	H272 - May intensify fire; oxidizer. H319 - Causes serious eye irritation.	Yes	The methods for determining the biological degradability are not applicable to inorganic substances. Bioaccumulation is not expected.	Yes	4,000	IBC with plastic bund (min 110% of a single IBC) • 2,000l at Position 2 (chemical store) • 2,000l at Position 5 (WwTP dosing IBCs)	Water treatment (Genco)	No environmentally hazardous. None at quantities stored (IBC)
Nutromex Plus 234a (Biological Nutriants)	L			No		No	4,000	IBC with plastic bund (min 110% of a single IBC) • 2,000l at Position 2 (chemical store) • 2,000l at Position 5 (WwTP dosing IBCs)	Water treatment (Genco)	None at quantities stored (IBC)

Note: The maximum volumes for position 2 (chemical store) are estimates, this will be dependent on the minimum orders available.


Position 5
WWTP dosing
IBCs
Position 4
WWTP bulk
storage
Position 3
Wash line dosing sta-
tion
Position 1
Caustic Soda 12m³
tank
Position 2
Chemical
Store