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Report No 20937/1

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ENVIRONMENTAL RISK ASSESSMENT
for
LINK RECYCLING
MATERIALS RECYCLING FACILITY
HUYTON, MERSEYSIDE

Prepared for

LINK RECYCLING LIMITED
Unit 3 The Lombard Centre
Link Road
Huyton
Merseyside
L36 6AP

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1. INTRODUCTION

1.1 Report Context

1.1.1 The Arley Consulting Company Limited (TACCL) has been commissioned by Link Recycling Limited (LR) to prepare a permit variation application for the site in Huyton, Merseyside.

1.1.2 The site currently operates as a Material Recycling Facility under Standard Rules Permit SR 2008 No 14, with a maximum annual throughput of 75,000 tn/yr. The permit reference number is EPR/CB3806XX.

1.1.3 It is proposed to vary the permit to a bespoke household, commercial and industrial waste transfer station with a maximum throughput of 450,000 tn/yr. It is also proposed to accept a wider range of waste types than the current permit allows.

1.1.4 This report has been prepared to support the proposed variation with reference to EA guidance: Risk Assessments for your Environmental Permit[1], and contains the following elements:

- A description of the site and its baseline environmental conditions
- Description of operations
- Identification of hazards
- Identification of receptors
- Identification of pathways and assessment of risks
- Mitigation and control required for risks identified

1.2 Site Details

1.2.1 The recycling facility is located within the Huyton industrial estate at Units 1,2,3 of the Lombard Centre, Link Road, Huyton, Merseyside L36 6AP. The approximate National Grid Reference for the site is SJ 45499 90223. A site location plan, Drawing No 20937/01, is presented in Appendix D.

[1] https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit

1.2.2 The Lombard Centre is a fenced and gated area of industrial units and is accessed off Link Road.

1.2.3 The site comprises a rectangular shaped parcel of industrial land covering approximately 0.57 hectares. It houses 3 industrial units which are connected to form one processing building. A site office is situated at the front of Unit 3 adjacent to the weighbridge. There is a double storey portacabin style office and canteen/washroom. An area of yard provides external storage and space for loading vehicles and manoeuvring.

1.2.4 The site is secured with palisade fencing, minimum of 1.8 m high, and lockable gates.

1.2.5 The site entrance is concrete surfaced, as is the majority of the yard. An area of the yard along the western edge is hardstanding and is currently used for storage of empty skips and parking. This surface will be sealed before any waste storage is undertaken in this area.

1.3 Surrounding Details

1.3.1 The site is located fairly centrally within Huyton Industrial Estate which has an area of around 4 km^2.

1.3.2 From the permit boundary, the industrial estate extends 280 m to the north, 257 m to the south, 436 m to the east and 500 m to the west.

1.3.3 To the north of the site is Stadt Moers country park which forms part of the Mersey Forest network. Stadt Moers Park covers more than 220 acres of land between Whiston and Huyton and includes meadow, woodland and pond habitats, set amongst a network of footpaths.

1.3.4 The M57 motorway is located approximately 500 m to the east and the Liverpool—Manchester railway approximately 500 m to the north.

2. IDENTIFICATION OF RISKS

2.1 Current Operations

2.1.1 The site currently accepts Chapter 20 EWC waste codes for recycling, including mixed municipal waste and separated fractions from municipal and commercial/industrial sources. The site is permitted to accept up to 75,000 tonnes per year under Standard Rules permit SR 2008 No14.

2.1.2 Treatment is through manual and mechanical sorting and screening to produce recyclable fractions such as wood, metal, glass, selected plastic (eg uPVC), hardcore and paper/card. Residual waste is shredded and shipped out for use as refuse derived fuel (RDF).

2.1.3 All treatment is carried out within the building. Incoming waste is deposited in the reception area for processing. Processed fractions are stored in bays/ skips for removal from site.

2.1.4 The waste treatment process is shown on a flow chart contained in Appendix B and described in the following paragraphs.

2.1.5 Waste from the incoming stockpiles is fed into a hopper using an excavator which is then fed into a trommel for separation. Fines are deposited below the trommel. Waste is conveyed to a manual picking line and separated fractions (wood, card/paper, plastic, glass, metal, hardcore) are collected below the conveyor into separate bays. These are dispatched to third party outlets for recycling.

2.1.6 Residual material is shredded and dispatched to Ineos Runcorn as RDF for energy recovery.

2.1.7 Magnets pick off metals on the picking line, pre-shredder and on the fines plant.

2.2 Proposed Changes

2.2.1 It is proposed to increase the annual throughput to a maximum of 450,000 tonnes per annum. This equates to an average of 1,285 tonnes per day maximum treatment capacity. This is based on the current 7 day operational week and spread over 50 weeks of the year to allow 2 weeks full shutdown.

2.2.2 No new treatment processes are proposed, these will be the same as the existing operations. It is proposed to add disposal activities D9, D13 and D15 to the permit as some of the residual waste may not be recoverable and have to go to landfill. This will be kept to a minimum as wastes will be accepted for their recoverable value and there is no economic gain in processing waste to then dispose of it. The proposed activities are detailed in Table 1.

Description of activities	Limits of activities
R3: Recycling/reclamation of organic substances which are not used as solvents **R4**: Recycling/reclamation of metals and metal compounds **R5:** Recycling/reclamation of other inorganic materials **R13**: Storage of waste pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced) **D9:** Physico-chemical treatment not specified elsewhere which results in final compounds or mixtures which are disposed of by the operations numbered D1 to D12 **D15:** Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection)	Waste types as specified in Appendix A. No more than 450,000 tonnes per annum shall be accepted. No more than 50 tonnes per day of non-hazardous waste to be treated at the site under a D9 activity. Treatment consisting of manual and mechanical sorting, separation, screening, shredding, crushing, baling or compaction of waste into different components for disposal (no more than 50 tonnes per day) or recovery. All waste shall be treated inside the building. All waste that may cause litter, odour or attract pests must be stored inside the building. Selected inactive waste will be stored outside in skips or covered bays.

Table 1: Proposed Activities

2.2.3 It is proposed to accept a wider range of industrial and commercial wastes in addition to the municipal waste already permitted. Proposed waste types are listed in Appendix A.

2.2.4 Storage of any combustible material will be in accordance with EA guidance on maximum stockpile sizes and separation distance for fire prevention. Further information is provided in the Fire Prevention Plan, Report No 20927/2.

2.2.5 The layout of waste at the site is shown on the site infrastructure plan (Drawing No 20937/02) and Fire Prevention Plan (Drawing No 20937/04).

2.3 Identification of Receptors

2.3.1 The location of the site in relation to potential receptors within 1 km is shown on Drawing No 20937/03 contained in Appendix D and summarised in Table 2.

2.3.2 The closest residential properties are located beyond the industrial estate to the south-west, on Kipling Avenue, approximately 266 m from the site boundary. These form part of the suburb of Huyton.

2.3.3 The closest surface water course is Longwood Mill Brook is located approx. 275 m to the east.

2.3.4 Stadt Moers park is 260 m to the north.

Reference	Receptor	Direction from	Approximate Distance from (m)
Residential			
1	Huyton Residences	N, S, W	266 – 1 Km
	Windy Arbor Residences	E	840
Industrial/ Commercial			
2	Surrounding Huyton Business Park	N, E, S, W	Adjacent – 1 Km
Transport			
3	Motorway (M57 / M62)	E	430
	Rail Lines	N	500 – 700
Public Rights of Way			
	None Identified		
Amenity/ Recreation			
4	Stadt Moers Park	N	260
	Huyton Recreation Ground	N	345
	Sawpit Park	NW	630
	St John's Millennium Green	W	470
	McGoldrick Park	W	845
Waterways			
5	Logwood Mill Brook	E	275
	Lake in Stadt Moers Park	E	535
Designated Ecological Sites			
	None Identified		
Educational Institutions			
6	Mosscroft Primary School	N	840
	Huyton Arts & Sports Centre for Learning	NW	925
	School	W	600
Hospitals/ Health Care Institutions			
	None Identified	-	-

Table 2: Location of Receptors

Geology

2.3.5 Review of the published geology for the area on the BGS website[2] indicates that the site is underlain by superficial deposits of Devensian Till. Bedrock strata is mudstone, siltstone and sandstone formation.

[2] https://www.bgs.ac.uk/map-viewers/geology-of-britain-viewer

Ecology

2.3.6 There are no statutory designated habitats sites within 2 km of the site. There are areas of priority habitat deciduous woodland in and around Stadt Moers park. This area is part of the Mersey Forest, which is a community forest.

Hydrogeology

2.3.7 The site is not located within a source protection zone. The underlying bedrock is classified by the EA as secondary A aquifer which are 'permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers'.

2.3.8 There are no licensed groundwater abstractions within 250 m of the site[3].

Hydrology

2.3.9 The nearest surface water feature is the Logwood Mill Brook located about 275 m to the east of the site. The EA Data catchment explorer[4] lists the overall classification of this watercourse as 'poor'.

2.3.10 Information viewed on the EA online Public Register reveals there is a water discharge permit issued to United Utilities for Link Rd CSO. This is within 100 m of the site and presumably discharges into Logwood Mill Brook in emergency overflow situations.

2.3.11 There is one licensed surface water abstraction approximately 190 m to the south of the site[3]. This is from Ochre and Dog Clog Brooks at Tarbock Hall Farm, Prescot. The extraction is for use in spray irrigation.

2.3.12 The site is located in flood zone 1 which has a low probability of flooding.

Drainage

2.3.13 The site entrance is concrete surfaced, as is the majority of the yard. An area of the yard along the western edge is hardstanding and is currently used for storage of empty skips and parking. It is planned to seal this area before any waste is stored on it. The site surfacing is shown on Drawing No 20937/02.

2.3.14 Surface run-off drains into a number of subsurface grids with silt traps, situated across the yard, and enters a main drain just outside the site entrance, from where it flows to a surface water sewer beneath Link Road. The location of the sewer is shown on the plan provided by United Utilities in Appendix C.

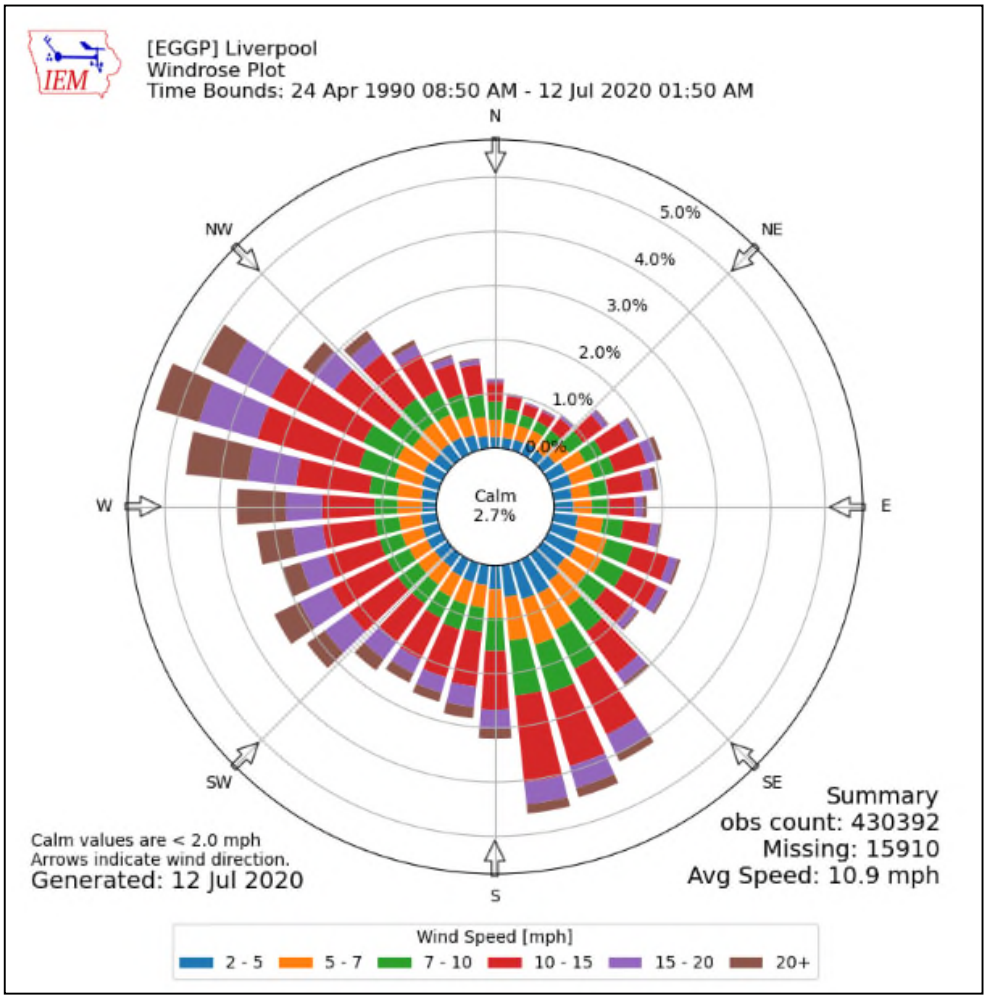
[3] Public register request to EA, information provided on 12/4/21
[4] https://environment.data.gov.uk/catchment-planning/WaterBody/GB112069060710

2.3.15 Clay drain mats are fixed to the walls of the processing building and these will be placed over the grids in the event of a spillage or in the case of a fire to stop firewater entering the drainage system. Custom made rubber 'speed bumps' will be stored outside each roller shutter door and will be placed across doorways to prevent firewater running out of the building in the event of a fire. Similar rubber speed bumps will also be placed across the site entrance to prevent firewater running off site.

Climate

2.3.16 Figure 1 shows the wind rose[5] for data provided from Liverpool Airport which is approximately 8 km south of the site. The wind rose shows that the prevailing wind direction is from the west with wind speeds most frequently between 10 – 20 knots, ie moderate to fresh breeze on the Beaufort scale. Winds from the south are also common but typically lower in strength and most frequently recorded at speeds less than 15 knots. Therefore the prevailing wind direction is away from the most sensitive receptors (ie the residential receptors to the southwest).

Figure 1: Wind Rose for Liverpool Airport



[5] https://mesonet.agron.iastate.edu/sites/windrose.phtml?station=EGGP&network=GB__ASOS

2.3.17 Rainfall data available from the Met Office from their closest appropriate monitoring site at Woodford, Greater Manchester, reports that for an average of 151 days per year, rainfall is greater than 1 mm.

2.4 Identification of Hazards

2.4.1 Potential hazards from operation of the materials recycling facility have been identified as:

- Noise & vibration
- Odour
- Pests
- Dust
- Litter
- Uncontained run-off
- Accidents (fire, vandalism, flood, spillage, non-compliant waste)

2.4.2 The operation is not considered to pose a risk to air (excepting fugitive dust) due to the nature of waste materials that are accepted; there are no additional emissions from site operations which would contribute global warming gases other than vehicle exhaust emissions.

2.4.3 The deposition of mud from delivery vehicles is not considered to be a significant issue as the site and access road are hard surfaced.

3. ASSESSMENT OF RISKS

3.1 Methodology

3.1.1 Overall risk is a combination of the severity of an event and the likelihood that it will occur. Probability of occurrence is designated as:

- Probable – expected to occur based on previous occurrences
- Likely – expected to occur due to proposed changes
- Possible – this may occur, it may or may not have happened occasionally in the past
- Unlikely – not expected to occur
- Very Unlikely – has never and is not expected to occur

3.1.2 The magnitude of risk is determined by the probability of exposure and the severity of the consequences, whereby:

- High – severe and long lasting environmental effects to the wider locality
- Medium – effects to the local environment and community
- Low - minor, short lived effects just beyond the site boundary
- Negligible – no discernible effect beyond the site boundary

3.1.3 An event could have a high probability of occurring but have minor environmental consequences; therefore, it will be designated as a low risk. Likewise, a risk with severe consequences could be unlikely to occur and will be designated as a low risk. A high-risk designation would be assigned to an event that has severe consequences and is expected to occur.

3.2 Assessment of Risks

3.2.1 Risks to receptors from hazards identified in Section 2.3 have been assessed, following a source-pathway-receptor approach. These are presented in Tables 3 to 9. Risks assessed as medium or high will require mitigation and control which are detailed in Section 4.

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Engine noise and vibrations from waste processing inside building	Local residents, industrial neighbours	Noise through the air and vibration through the ground	Intermittent noise above background noise during daytime operating hours, similar to other waste and industrial operators in the vicinity	Residents – unlikely due to the distance from site Commercial/industrial neighbours – possible but these neighbours are not considered sensitive and noise will be similar to other operations on the industrial estate	Low	Machines fitted with silencers and serviced according to manufacturer recommendations	Low
Noise from reversing beepers					Low		Low
					Low		Low
Noise and vibrations from incoming and outgoing vehicles					Low		Low

Table 3: Assessment of Risks from Noise and Vibration

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Odour from storage and treatment of waste Odour from the movement/hand-ling of waste Odours from vehicles entering and leaving site	Local residents Employees at neighbouring workplaces	Air	Waste odours in the locality	Possible: odour may be detectable off site at closest neighbours but Unlikely at most sensitive residential receptors due to distance and wind direction	Medium	Odour management will be in accordance with the Odour Management Plan (Report No 20937/3), including: Potentially biodegradable waste is stored and processed inside the building, only inactive wastes will be stored outside. Waste turnaround times are kept to a minimum to prevent biodegradation on site leading to odour generation Waste acceptance controls and pre-acceptance procedures detailed in the EMS will prevent acceptance of inherently malodorous waste. Any such waste will not be accepted at the site Odour monitoring will be carried out and recorded by site staff and reviewed through the EMS. Any problems perceived by staff on site will be investigated and remedied All vehicles carrying waste will be required to be covered on entering and leaving site	Low

Table 4: Assessment of Risks from Odour

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Pests (insects, birds and vermin)	Local residents Employees at neighbouring workplaces	Overland to neighbouring properties By air for flying insects and birds	Increased flies in summertime, rodents attracted to site and infest wider area	Possible	Medium	All biodegradable waste will be stored inside the building Daily inspections for pests with results logged in the site diary Waste turnaround times will be kept to a minimum Pest management procedures including regular monthly visits (more frequently if deemed to be required) from pest control contractor including baiting for rodents. Emptying building for clean down and inspection twice per year	Low

Table 5: Assessment of Risks from Pests

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Dust generation from waste storage and processing Dust generated by vehicle movements	Local residents Employees at neighbouring workplaces	Air (wind-blown dust)	Dust in locality causing nuisance due to deposition on vehicles and in gardens of nearest neighbours, possibly causing respiratory effects	Unlikely as all processing is carried out within the building which provides containment. Waste capable of generating dust is stored inside the building. Waste which is stored externally such as wood and uPVC plastic is not a source of dust generation Other dust sources in the area including the inert waste processing yard immediately adjacent to the west Rainfall greater than 1 mm occurs on average 151 days per year which will provide natural dampening on site surfaces	Low	The site surface will be damped down in dry weather to prevent dust generation by vehicles. External stockpiles can also be damped down using mains water in prolonged dry spells	Low

Table 6: Assessment of Risks from Dust

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Litter from vehicles entering and leaving site Litter escaping from building	Local residents Employees at neighbouring workplaces	Litter raised by wind during transfer and blown into the wider locality	Litter accumulating off site and in neighbouring properties	Unlikely from vehicles as all will be covered Possible escape of litter out of processing building Unlikely nuisance to residents due to distance but possible nuisance to industrial neighbours	Medium	All waste processing operations are carried out indoors Litter monitoring is undertaken daily as detailed in the EMS and recorded in the site diary In the event of litter escape it will be collected before the end of the working day Housekeeping, including yard sweeping will be carried out daily	Low

Table 7: Assessment of Risks from Litter

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Surface water run-off from yard and external stockpiles	Longwood Mill Brook;	Surface drains to surface water sewer which will usually discharge into the nearest watercourse	Reduction of water quality due to contaminants or small fragments of litter in the run-off	Unlikely as waste storage predominantly inside and external storage areas will be covered. It is possible that small pieces of litter from shredded waste can be in the yard and be washed into the drain	Low	To control litter, the yard is swept daily and litter is collected if escaped from the building Clay mats and rubber speed bumps are in place so that drainage can be prevented from leaving site in an emergency. Silt traps on sub surface grids trap any litter and sediment and prevent it entering the surface sewer	Low
	Secondary A aquifer	Soaks into underlying land through permeable areas	Reduction of water quality due to dissolved contaminants	Unlikely as the majority of the site is hard surfaced and drains to surface sewer. Hazardous waste not permitted so contaminated waste would not be stored on site	Low		Low
Firewater run-off	Longwood Mill Brook;	Surface drains to surface water sewer which will discharge into the nearest watercourse	Discharge of firewater containing contaminants	Possible as the site currently drains freely to surface sewer and there is a small area of permeable surfacing	Medium		Low
	Secondary A aquifer	Soaks into underlying land through permeable areas	Seepage of water and contaminants into underlying ground and aquifer	Unlikely as the impermeable area is slightly higher than the permeable area containing the drains and water runs off this towards the drains	Low	No waste will be stored on the impermeable surface until it has been sealed.	Low

Table 8: Assessment of Risks from Uncontained Run-off

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Fire caused by arson &/ or vandalism causing the release of polluting materials to air (smoke or fumes), water or land Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land	Local residents, industrial neighbours & wider community Staff, firefighters M57 motorway; Liverpool-Manchester Railway line	Air transport of smoke	Respiratory irritation, illness & nuisance to local population Injury to staff, firefighters Disruption caused by smoke nuisance on motorway or railway	Possible – combustible waste will be stored and processed on site	Medium	Fire prevention will be in accordance with the Fire Prevention Plan (Report No 20937/2), including: Flammable waste is not permitted on site (ie. hazardous waste classed as HP3). Waste acceptance criteria serve to ensure no flammable material enters site. FPP in place as part of EMS includes: - Fire suppression system will be installed in building - Range of fire extinguishers in building - Fire training carried out for all relevant personnel & fire drills practised periodically - Fire watch undertaken by site security outside of working hours and CCTV - Storage of any combustible material inside the building will be in accordance with EA guidance on maximum stockpile sizes and separation distances - Maximum storage of 3 to 6 working days (eg over public holidays, or plant breakdown) for incoming waste, and 7 days for other combustible wastes - Continual turnaround of material so that the oldest material is always removed from the site first - Daily temperature monitoring of stockpiles using temperature probe; stockpiles turned if increase in temperature detected - Clay mats and rubber speed bumps are in place so that drainage can be prevented from leaving site in an emergency.	Low
	Longwood Mill Brook	Direct runoff of uncontained firewater from site to surface drainage system;	Pollution of Longwood Mill Brook and underlying aquifer	Possible - uncontained firewater could run off site	Medium		

Table 9: Assessment of Accident Risks

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Spillage of liquids, eg leakage of fuel store	Surface water course (Longwood Mill Brook)	Spillage enters surface drains which will discharge into the nearest watercourse	Contamination of Longwood Mill Brook	Possible	Medium	Fuel is stored in double bunded tank with rubber drip mat in place in front of the tank to catch any drips Any oils, fuels etc stored within appropriate bunded containment Regular servicing & maintenance of vehicles Any spillage occurrence dealt with by use of spill kits. Contaminated material is sent for disposal off-site, as per procedure in EMS	Low
	Underlying secondary A aquifer	Soaks into underlying land through permeable area	Contamination of groundwater		Medium		
Acceptance of non-compliant waste types, eg hazardous waste	Closest residents, industrial neighbours	Odour or dust through air	Inhalation of contaminated dust	Unlikely due to type of waste accepted	Low	Waste acceptance controls and pre-acceptance procedures will prevent acceptance of non-compliant waste types Quarantine area for waste types inadvertently received on site which are not acceptable under permit, these will be rejected and removed off site	Low
	Surface Water	Direct run-off of hazardous liquid waste across ground to surface sewer and then to watercourse	Contamination of groundwater and Longwood Mill Brook	Unlikely as liquid waste not accepted; hazardous waste not accepted.	Low		
	Underlying secondary A aquifer	Direct run-off of liquid waste across ground and soakaway to underlying aquifer			Low		
Flooding	Site	Flooding from Longwood Mill Brook and runoff over land	Wastes washed off site	Unlikely – site not in a flood risk area	Low	None required	Low

Table 9: Assessment of Accident Risks (continued)

4. MITIGATION AND CONTROL

4.0.1 Risks from odour, pests, litter, fire and firewater run-off were determined as 'medium' and require mitigation. The proposed measures, which were outlined in the tables above, are presented in detail below. These measures have been included in the EMS and will be implemented through staff training, recording of actions and management control.

4.1 Odour

4.1.1 Mitigation against odour generation include waste acceptance controls, fast turnaround times and odour monitoring. This is detailed in the Odour Management Plan, Report No 20937/3.

4.2 Pests

4.2.1 The risk from pests to identified receptors was assessed as medium.

4.2.2 Mitigation measures in place to reduce the risk of pests to low include:

- All biodegradable waste will be stored inside the building which is sealed outside operational hours, and waste turnaround times will be kept to a minimum;
- Pest management procedures will be in place which include regular monthly visits (more frequently if deemed to be required) from a pest control contractor including baiting for rodents, and emptying building for periodic inspection; and
- Regular monitoring for pests will be carried out and recorded by site staff and reviewed through the EMS.

4.3 Litter

4.3.1 The risk of litter to identified receptors was assessed as medium. Mitigation measures included in the EMS to reduce the risk of windblown litter to low include:

- All waste treatment will be carried out indoors;
- Litter monitoring will be undertaken daily as detailed in the EMS and recorded in the site diary;

- In the unlikely event of litter escape it will be collected before the end of the working day; and

- Regular housekeeping will be conducted, including yard sweeping.

4.4 Fire and Firewater Containment

4.4.1 The Fire Prevention Plan (Report No 20937/2) contains details of how the site will be managed to prevent fire and to control and mitigate any effects if a fire occurs.

5. CONCLUSIONS

5.1 The predominant hazards associated with the proposed operation are noise and vibration, odour, pests, litter, uncontained run-off and accidents.

5.2 Potential risks associated with these hazards to identified receptors have been assessed and risks from odour, pests, litter and accidents, were determined as medium and require mitigation. All other risks were determined to be low.

5.3 Mitigation will be provided by a combination of physical containment and management procedures.

5.4 Odour will be contained by carrying out both storage and treatment of biodegradable waste inside the materials recycling building. Odour generation and attraction to pests will be minimised by swift turnaround times of waste received at the site.

5.5 Litter will be managed by storing and treating all potentially litter generating waste inside the building. Regular housekeeping such as sweeping up litter will be carried out and litter collection will be carried out daily.

5.6 Contaminated firewater will be prevented from entering the surface water drainage system.

5.7 Pollution of groundwater will be prevented by sealing the small area of permeable surfacing before any waste is stored on this area.

5.8 In conclusion, it is considered that the operations on site will have minimal residual impact on the surrounding environment or to identified receptors with the engineering control and management practices proposed. The site is situated in an industrial area with no neighbouring residential receptors or sensitive ecological sites and is therefore ideally suited to waste operations.

C Gettinby
PhD BSc (Hons) MCIWM
Director

APPENDIX A

Proposed Waste Types

Waste code	Description
01	**Wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals**
01 01	**wastes from mineral excavation**
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 13	**wastes from stone cutting and sawing other than those mentioned in 01 04 07**
02	**Wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
02 04	**wastes from sugar processing**
02 04 01	soil from cleaning and washing beet
03	**Wastes from wood processing and the production of panels and furniture, pulp, paper and cardboard**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 09	lime mud waste
04	**Wastes from the leather, fur and textile industries**
04 02	**wastes from the textile industry**
04 02 22	wastes from processed textile fibres
07	**Wastes from organic chemical processes**
07 02	**wastes from the MFSU of plastics, synthetic rubber and man-made fibres**
07 02 13	waste plastic
07 02 17	waste containing silicones other than those mentioned in 07 02 16

08 02	**wastes from MFSU of other coatings (including ceramic materials)**
08 02 01	waste coating powders
10	**Wastes from thermal processes**
10 01	**wastes from power stations and other combustion plants (except 19)**
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 02	coal fly ash
10 02	**wastes from the iron and steel industry**
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 03	**wastes from aluminium thermal metallurgy**
10 03 05	waste alumina
10 09	**wastes from casting of ferrous pieces**
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 10 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07
10 10	**wastes from casting of non-ferrous pieces**
10 10 03	furnace slag
10 11	**wastes from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 12	waste glass other than those mentioned in 10 11 11
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 01	waste preparation mixture before thermal processing
10 12 06	discarded moulds
10 12 12	wastes from glazing other than those mentioned in 10 12 11
15	**Waste packaging, absorbents, wiping cloths, filter materials and protective clothing not otherwise specified**
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02

17	**Construction and demolition wastes (including excavated soil from contaminated sites)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastic**
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	**metals (including their alloys)**
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	zinc
17 04 05	iron and steel
17 04 06	tin
17 04 07	mixed metals
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
19	**Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use**
19 08	**wastes from waste water treatment plants not otherwise specified**
19 08 02	waste from de-sanding
19 10	**wastes from shredding of metal-containing wastes**
19 10 02	non-ferrous waste
19 10 04	fluff-light fraction and dust other than those mentioned in 19 10 03
19 10 06	other fractions other than those mentioned in 19 10 05
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal

19 12 04	plastic and rubber
19 12 05	glass
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
20	**Municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
20 01 02	glass
20 01 10	clothes
20 01 11	textiles
20 01 39	plastics
20 01 40	metals
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 03	other non-biodegradable wastes
20 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste

APPENDIX B

Process Flow Chart

Process Flow Chart - Link Recycling, Huyton

INITIAL CONTACT WITH SUPPLIER: OD

Pre-acceptance checks: samples, photographs, site visit, waste producer declaration

ACCEPTABLE?

NO

Decline wastestream

YES

Schedule into site for delivery

CHECK WTN and INSPECT PRIOR TO DISCHARGE: SM

Incorrect paperwork

Contact OD

Resolved?

No

REJECT

Yes

Deposit in reception area of building for further inspection: SM

Non-conformance due to odour/flies/contamination?

Contact OD

Reload if driver still present or, quarantine pending rejection

Remove large items unsuitable for processing eg tyres, UPVC frames, matresses

Stockpile for disposal D or Recovery R depending on material

OK

Push into incoming waste stockpile

Trommel

TROMMEL

FINES: to fines screening plant

Light fraction

Fines R

FINES SCREENER

<50mm

50-300mm RDF R

Picking Line

SHREDDER

Glass R

Plastic R

Paper/ Card R

Wood R

Non-ferrous Metal R

Ferrous metal removed by magnet R

Non-recoverable (ie non-combustable) material: Stockpile for disposal D or recovery R depending on material

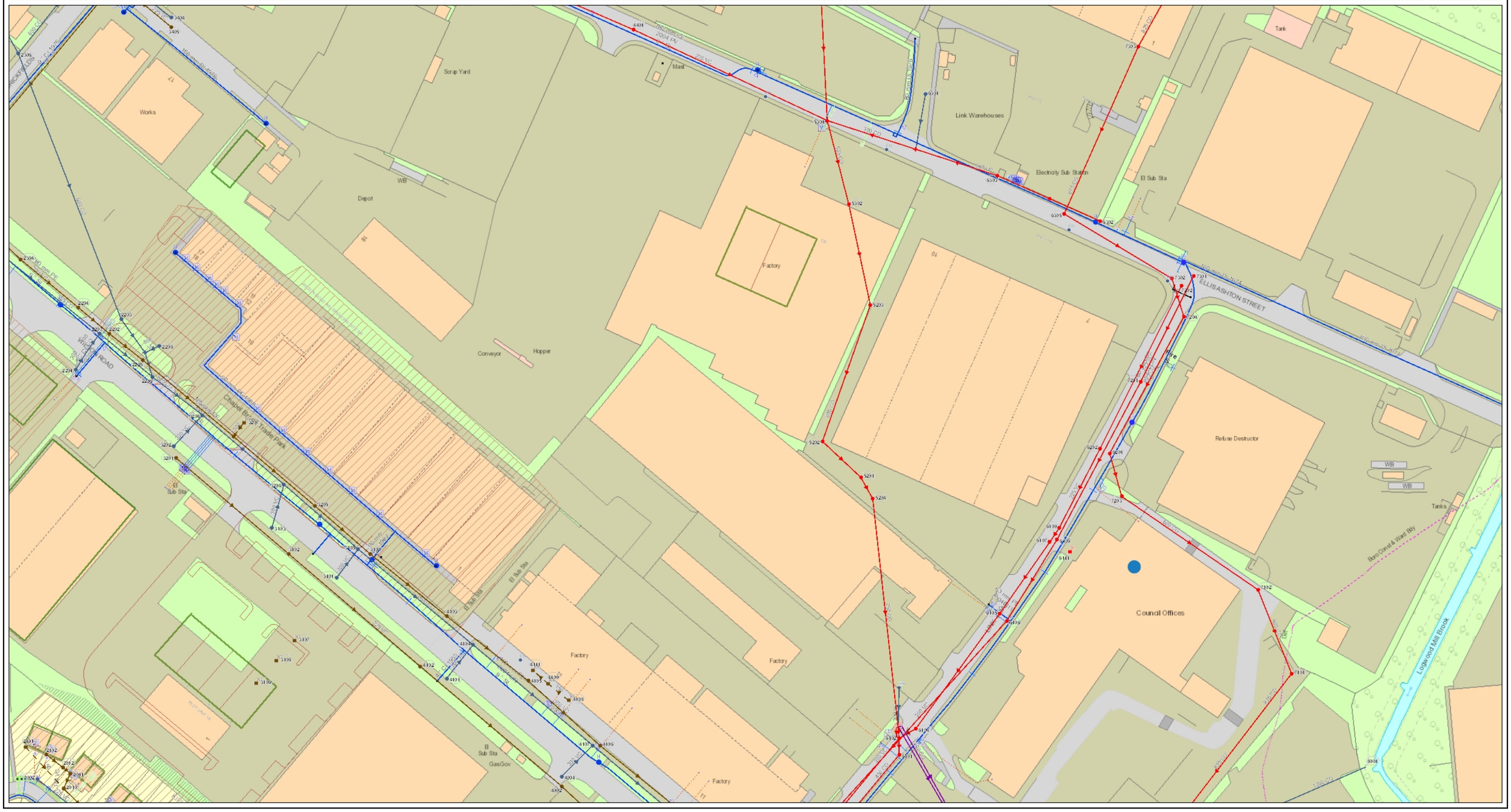
Responsibilities
OD = Ops Director
SM = Site Manager

R = Recovery
D = Disposal

APPENDIX C

United Utilities Sewer Plan

Centre :	X : 345547	Y : 390249	Date : 11/03/2021	Scale Approx : 1500



The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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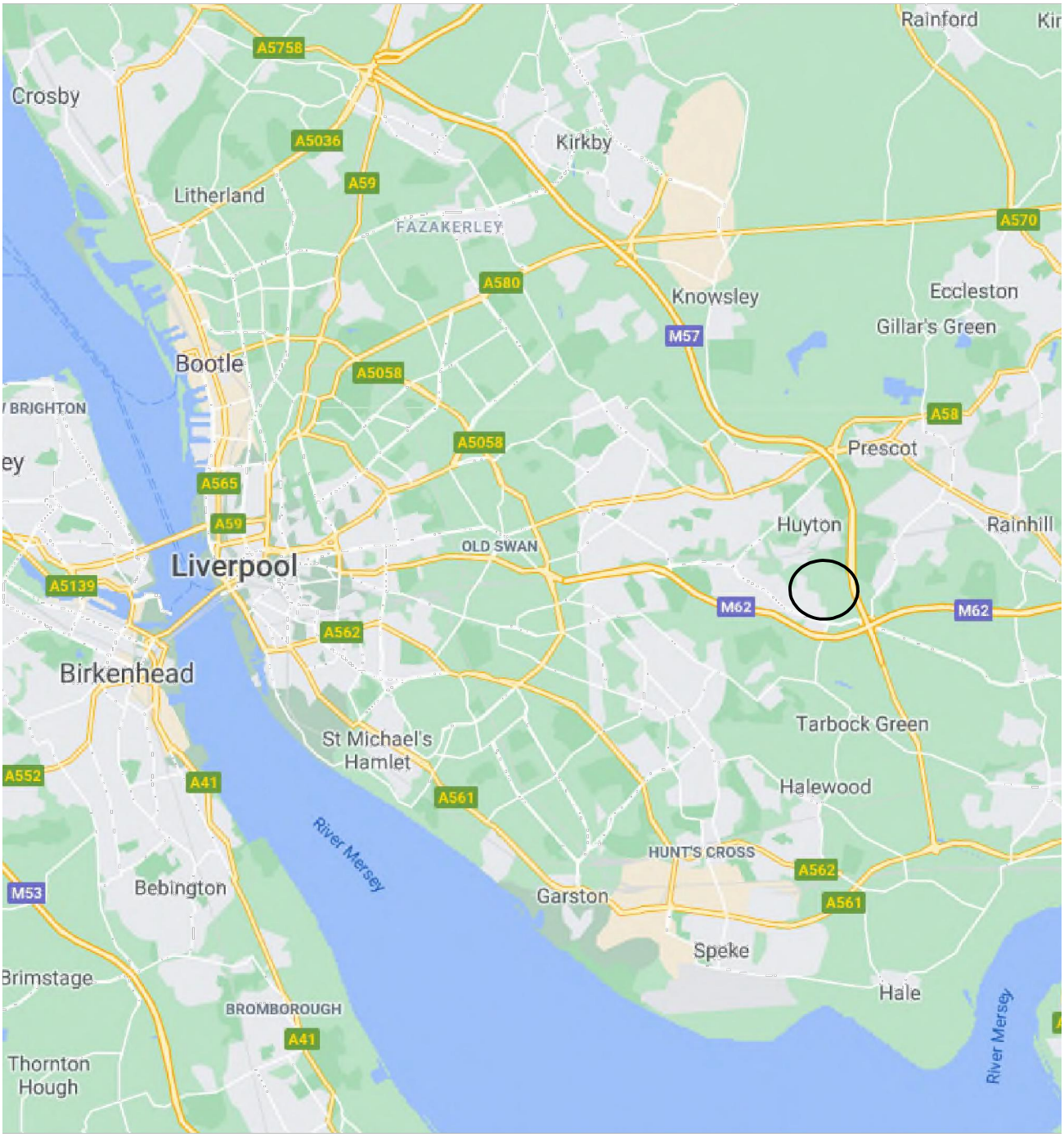
United Utilities
helping life flow smoothly

APPENDIX D

Drawings

NORTH



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Tel: 01257 278300
Fax: 01257 268063
E-mail: mailbox@tacc.co.uk

CLIENT
LINK RECYCLING LIMITED

JOB TITLE.
LINK RECYCLING, HUYTON

DRAWING TITLE.
SITE LOCATION PLAN

DRAWN BY.	APPROVED BY.	DATE.	SCALE.	DRAWING No.
M.Y.B.	M.L.	19/04/2021	NTS	21937/01

NORTH

RESIDUAL
METALS
PVC
METALS
BRICK
WOOD
PAPER
CONVEYOR
TROMMEL
FINES (<40 MM)
CONVEYOR
HOPPER
TROMMEL
SHREDDER
<50 MM (FINES)
SHREDDED RDF WASTE
<50 MM (FINES)
WASTE STORAGE
WASTE STORAGE
CANTEEN
INCOMING BLACK BAG WASTE
FOR LANDFILL SKIP
NCOMING MIXED WASTE
OFFICE
CONVEYOR
FINES PLANT
LIGHTS
SOILS
HEAVIES
WEIGHBRIDGE
QUARANTINE AREA
MOBILE PLANT STORAGE
QUARANTINE AREA (IN EVENT OF FIRE)
FUEL STORAGE
MAINTENANCE WORKSHOP
CAR PARK
OFFICE
SWIFT DESPATCH
FS TRADE DELIVERY
M MARKOWITZ LTD
SITE ENTRANCE

Legend

- PERMIT BOUNDARY
- FIRE WALL
- RUBBER SPEED BUMPS
- WATER HOSES
- OIL/FUEL STORAGE
- ROLLER SHUTTER DOORS
- DRAIN MATS
- CATCH DRAINS
- SURFACE WATER FLOW DIRECTION
- HARDSTANDING

REV.	DESCRIPTION	DATE	BY

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CLIENT.
LINK RECYCLING LIMITED

JOB TITLE.
LINK RECYCLING HUYTON

DRAWING TITLE.
SITE INFRASTRUCTURE LAYOUT PLAN

DRAWN BY.	APPROVED BY.	DRAWING No.
MYB	CG	20937/02
DATE. 10/04/2021	SCALE @ A1. 1:200	

NORTH

LEGEND

PERMIT AREA

1 KM RECEPTOR BOUNDARY

1 RECEPTOR REFERENCE (SEE REPORT 20937/2)

REV.	DESCRIPTION	DATE	BY

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CLIENT.

LINK RECYCLING LIMITED

JOB TITLE.

LINKWASTE
MATERIAL RECYCLING FACILITY
HUYTON, MERSEYSIDE

DRAWING TITLE.

RECEPTORS
1KM

DRAWN BY.	APPROVED BY.	DRAWING No.
MYB	CG	20937/03
DATE. 22/03/2021	SCALE @ A1. 1:4000	

NORTH

5. 41.4 m³
RESIDUAL
METALS
PVC
METALS
BRICK
WOOD
PAPER
3.00 m
9.00 m
4. 27.6 m³
6.00 m

TROMMEL
SHREDDER
6. <50 MM (FINES) 325 m³
3.65 m
6.88 m

8. SHREDDED RDF WASTE (50–200 MM) 450 m³
20.00 m
8.25 m

7. <50 MM (FINES) 203 m³
5.00 m
15 m

CONVEYOR
2.00 m
6.50 m
TROMMEL
3. FINES (<40 MM) 185 m³
FE
CONVEYOR
HOPPER

11. WASTE 279 m³
14.46 m
6.85 m
12. WASTE 144 m³
7.48 m

FE
FE
CANTEEN

2. INCOMING BLACK BAG WASTE 750 m³
20.00 m
7.13 m
12.00 m
2.40 m
10. FOR LANDFILL SKIP 38 m³
6.10 m

20.00 m
1. INCOMING MIXED WASTE 750 m³
12.00 m

FE
OFFICE
CONVEYOR

6.00 m
10.00 m
QUARANTINE AREA (IN EVENT OF FIRE)

WEIGHBRIDGE
FE
LIGHTS
SOILS
9. FINES 87m³
PLANT
HEAVIES
12.00 m
4.50 m

QUARANTINE AREA
MOBILE PLANT STORAGE

FUEL STORAGE
MAINTENANCE WORKSHOP
CAR PARK
OFFICE
SITE ENTRANCE

Legend

- PERMIT BOUNDARY
- FIRE WALL
- COMBUSTIBLE WASTE STOCKPILE
- RUBBER SPEED BUMPS
- WATER HOSES
- MANUAL CALL POINTS
- FIRE EXTINGUISHER
- OIL/FUEL STORAGE
- EMERGENCY MUSTER POINT
- ROLLER SHUTTER DOORS
- DRAIN MATS
- CATCH DRAINS
- STOCK ROTATION DIRECTION
- HARDSTANDING

NOTES:
1. ALSO REFER TO STOCKPILE VOLUME CALCULATION SPREADSHEET
2. DRAINAGE CONTAINMENT AREA INSIDE BUILDING (3210 m²)
3210 m² x 0.3 m SAND BAGS ACROSS DOORS = 963 m³

REV.	DESCRIPTION	DATE	BY

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CLIENT.
LINK RECYCLING LIMITED

JOB TITLE.
LINK RECYCLING HUYTON

DRAWING TITLE.
FIRE PREVENTION PLAN

DRAWN BY.	APPROVED BY.	DRAWING No.
MYB	CG	20937/04
DATE. 11/03/2021	SCALE @ A2. 1:250	

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