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STARRUS ECO HOLDINGS LTD T/A Panda

CAPPAGH ROAD

FINGLAS

DUBLIN 11

Prepared For: -

Starrus Eco Holdings Ltd
Cappogue
Finglas
Dublin 11

Prepared By: -

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Project	Site Condition Report			
Client	Starrus Eco Holdings Ltd			
Report No	Date	Status	Prepared By	Reviewed By
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	10/09/2021	Final		

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1. INTRODUCTION

Starrus Eco Holdings Ltd (SEHL) operates its waste management facility on the Cappagh Road, Finglas, Dublin 11, under an Industrial Emissions Licence granted by the Environmental Protection Agency (EPA). SEHL intends to apply for a review of the licence and this Site Condition Report has been prepared in support of the application.

The purpose of the report is to describe the current condition of the installation/facility by presenting summary details of ground and/or groundwater quality and having regard to relevant environmental quality standards or values and to state whether the condition of the site has deteriorated since first site condition report and what, if any, remedial action is required.

1.1 Methodology

OCM's assessment was based on the Baseline Report submitted with the original Industrial Emissions Licence application in 2014, and ongoing routine groundwater monitoring and reporting carried out in compliance with the current licence conditions.

2. CURRENT USE

2.1 Installation Location

The site is on Cappagh Road, approximately 2.5 km southwest of Dublin Airport, in an area that that has been extensively developed for industrial and commercial use and mineral extraction.

2.2 Installation Layout

The site layout is shown on Drawing 18139-200 submitted with the current application. It covers 2.5 hectares and comprises three waste handling buildings (Building A1 -2,030 m^2; Building A2 - 2,800 m^2 and Building B1 - 4,088 m^2) an electrical substation, two weighbridges, an office and associated control rooms, staff welfare building (100 m^2), fuel tanks and paved open yards.

2.3 Installation Activities

Mixed dry recyclables are sorted into the different types and these are then baled and stored before being sent for further treatment. Source separated wastes are baled and also stored before being sent off-site. Processed mixed solid wastes are accepted from other waste pre-treatment facilities and these are treated to remove recyclables, with the residues then further processed to produce solid recovered fuel (SRF). The SRF is sent to cement kilns where it is used as a replacement for fossil fuels.

Food waste (brown bin) and mixed household waste (black bin) that contain odorous materials are accepted and stored in a section of one of the buildings that is fitted with an odour control system. It is then sent to other waste management facilities for further treatment.

Out of date packaged food from commercial operators is accepted and depackaged in this section of the building and the contents sent for biological treatment to other treatment plants where the packaging is removed. This activity is authorised by the Department of Agriculture, Food and Marine under the Animal By-Products Regulations.

2.4 Surface Water Drainage

Surplus rain water run-off from roofs and run-off from paved areas is collected in the surface water drainage system and directed to an attenuation tank in the south-east corner of the site. The tank has a capacity of 1,400 m^3 and is connected to a Class 1 Full Retention Klargester Oil Interceptor.

The attenuation tank provides temporary storage of surface water and allows the discharge at a steady rate to the storm water sewer system serving the Stadium Business Park. The outflow from the tank is regulated by a hydrobrake, which has a maximum discharge rate of 6 litres/second (l/s).

The size of the attenuation tank is based on the run-off from an impermeable surface area (roof and paved yards) of 25,284 m^2 and the requirement to accommodate 1:100 year 6 hour rainfall event (60mm) that will generate 1,517.04 m^3 of run-off. Assuming a continuous discharge rate of 6l/second, which equates to 129.6m^3 over the 6 hour period, the required storage capacity is 1387.44 m^3.

There is a shut off valve in the attenuation tank that can be closed in the event of an incident, for example a fire, that has the potential to contaminate the rainwater run-off.

2.5 Wastewater

There is no connection to the municipal foul sewer. The waste processing does not generate a wastewater. The floor of processing buildings are regularly cleaned by a road sweeper. There are two underground concrete holding tanks, each 13.5m3 capacity, located at the entrances to Buildings A1 and A2 that collect any liquid seeps that occur inside the buildings. The contents are removed as required and sent to a municipal wastewater treatment plant.

2.6 Hazardous Substances

Diesel and gas oil are stored in above ground steel tanks located in a steel bund adjacent to Building B1. Drums of engine and hydraulic oil are stored on bunded pallets. Oil spill containment and clean-up equipment are maintained at strategic locations around the site. Bund integrity testing is completed at 3-year intervals and the most recent were completed in April 2021

2.7 Emergency Response

An emergency is an accident/incident that has the potential to result in harm to human health, damage to off-site assets and gives rise to environmental pollution. The EPA licence requires Panda to prepare an Emergency Response Procedure (ERP) and ensure that all staff are made aware of their requirements.
The ERP identifies all potential hazards at the site that may cause damage to the environment and also specifies roles, responsibilities and actions required to deal quickly and efficiently with all foreseeable major incidents and to minimise environmental impacts.

In addition SEHL has documented procedure on the handling and storage of potentially polluting substances used at the facility, e.g. oils and the filling of tanks and mobile plant. The procedure describes how filling the fuel storage tanks and refuelling/servicing the mobile plant should be carried out to minimise the risk of accidental spills and ensure that if these occur there is a rapid and effective response.

3. PAST USE

3.1 Site History

Prior to development as a waste management facility the site had been used for agricultural purposes. In April 2006 permission (F05A/1156) was granted for Stage 1 - development of a building to process construction and demolition and commercial and industrial waste. The permission restricted the amount of wastes to 50,000 tonnes per annum because of the condition of the local road network.

In December 2007, permission (F07A/0954) was granted for Stage 2 - to construct a new building to process dry recyclable waste and increase the annual waste intake to 200,000 tonnes. In May 2014 permission (13A/0135) was granted for Stage 3 - construction of a new building to process municipal solid waste and increase the amount of waste accepted annually to 250,000 tonnes.

In June 2018, permission was granted (FW18A/0067) to extend the operational hours at the installation to 24 hours a day 7 days a week. The permission to extend operating hours was limited to 1 year from the date of grant of permission. In December 2019, permission was granted (FW19A/0145) to operate 24/7 for three years from date of grant of permission.

In February 2021, permission was granted (FW20A/0037) to install roof mounted solar panels over two of the existing waste buildings. .

3.2 Contamination Issues

There are no known historical or existing contamination issues associated with the site.

4. ENVIRONMENTAL SETTING

4.1 Geology & Hydrogeology

The subsoils beneath the site are between 1.3 and 8.45 m thick and comprise sandy gravelly boulder clays. The bedrock belongs to the Boston Hill Formation and comprises nodular and muddy limestones and shale. The bedrock is a locally important (Lm) aquifer that is productive in local zones. The local direction of groundwater flow is to the south, but is likely to be greatly influenced by the large scale quarrying immediately to the east and north of the site (Huntstown Quarry). The aquifer vulnerability to pollution from the ground surface is Extreme. The aquifer is part of the Dublin Area Groundwater Body. This is categorised as being of 'Good' status, but is 'At Risk' of achieving its objective of protecting the existing status.

4.2 Hydrology

The site is in the catchment of the Tolka River, which is approximately 2 kilometres to the south west and south. There are no streams or water courses either on site, or in the surrounding area. The Tolka River is part of the Liffey Water Management Unit, as designated by the Eastern River Basin District Management Plan. The overall status of the river is 'Moderate', and it is considered 'At Risk' of not achieving its restoration objective of at least 'Good' status by 2027.

4.3 Pathways

In the event of a spill to ground, hazardous substances would discharge to the surface water drainage system serving the operational area. Runoff is directed to an attenuation tank in the south-east corner of the site. The tank has a capacity of 1,400 m^3 and is connected to a Class 1 Full Retention Klargester Oil Interceptor. The outflow from the tank is regulated by a hydrobrake, which has a maximum discharge rate of 6 litres/second (l/s). There is a shut off valve in the attenuation tank that can be closed in the event of an incident, for example a fire that has the potential to contaminate the rainwater run-off.

It is possible that some of the substances could infiltrate to the subsoil and through damaged areas of the paving. The subsoils beneath the site are thin and provide limited protection to the underlying bedrock aquifer.

The local direction of groundwater flow is to the south, but is likely to be greatly influenced by the large scale quarrying immediately to the east and north of the site (Huntstown Quarry).

5. SOIL AND GROUNDWATER QUALITY

5.1 Soil Quality

A site investigation was carried out at in 2005 to determine the type and thickness of the soils and subsoils prior to the start of construction of the existing facility. The investigation comprised the excavation of seven (7 No.) trial pits across the site. The pits revealed approximately 25 cm of top soils overlying a boulder clay that ranges in thickness from 0.8 to 1.35 m and is underlain by the bedrock. There was no visual evidence of any soil contamination and groundwater was not encountered. The underlying bedrock locally comprises nodular muddy limestone and shale.

5.2 Groundwater Quality

There are is one on-site groundwater well which is monitored annually in accordance with the EPA licence requirements. The results of the monitoring completed in 2019 and 202 are in Table 8.1 of the EIAR submitted as Attachment 6.23 of the licence review application. There are no trigger levels set in the licence, but for comparative purposes Table 8.1 includes the EPA Interim Guideline Values (IGVs) on groundwater quality and the Groundwater Regulations Threshold Value (TGV) which were introduced in 2010 (S.I. 9 of 2010, as amended) on foot of requirements from the Water Framework Directive and have evolved from the IGVs. The results indicate that the quality of groundwater beneath the site is good, and has not been impacted by site activities.