Project details	Environmental Permit Variation Application – EPR BB3103MJ/A002 Grundon Sand and Gravel Limited – Kennetholme Quarry Recycling Facility
Applicant details	Grundon Sand and Gravel Limited Thames House Oxford Road Benson Wallingford Oxfordshire OX10 6 LX
Report details	**EP Variation Application – Appendix 6: Non-Technical Summary** **Document reference: GR_2021.02/01_v2**
Report date	27 June 2025
Submitted to	Permitting and Support Centre Environmental Permitting Team Environment Agency Quadrant 2 99 Parkway Avenue Parkway Business Park Sheffield S9 4WF Email: PSC@environment-agency.gov.uk
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1 Introduction

1.1 General

Grundon Sand and Gravel Limited (the 'applicant') has requested that Reva Environmental Ltd (the 'agent') prepares an Environmental Permit (EP) variation application, for its Kennetholme Quarry Recycling Facility on Colthrop Lane, Thatcham, Berkshire, RG19 4NT. The centre of the site is as NGR SU 54098 66170.

The facility operates in accordance with a Tier 2 bespoke EP (a Waste Operation) for the treatment of inert waste to produce soil, soil substitutes and aggregate up to 15,000 tonnes per year.

Question 6a of Form C2 requires the provision of a non-technical summary. This document comprises that non-technical summary.

1.2 Current Site Status

The facility is currently authorised by EP ref. EPR/BB3103MJ which was originally granted in February 2014. The EP has not been amended since its original issue.

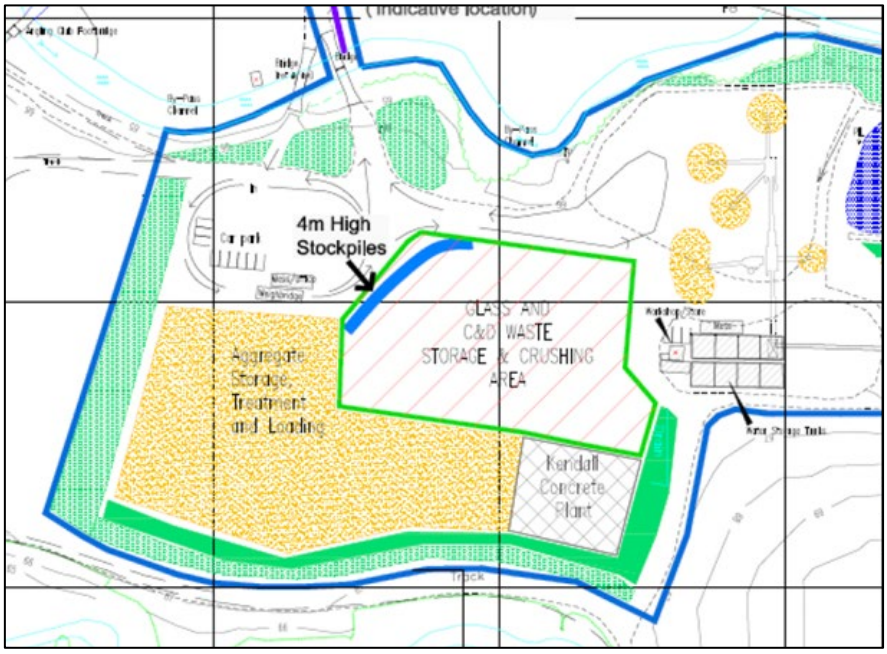
The current EP allows the following activities to be carried out at the facility:

- R13 – Storage or waste pending any of the operations numbered R3 and R5;
- R3 – Recycling/reclamation of organic substances which are not used as solvents; and
- R5 – Recycling/reclamation of other inorganic compounds.

Treatment of waste (as listed in Table 2.1 of the EP) is limited to sorting, separation, screening, and blending of waste as a soil, soil substitute or aggregate. Secure storage of waste is permitted, pending this treatment. The facility currently processes glass and construction and demolition waste and subjects it to crushing and screening to produce separate stockpiles of graded secondary aggregate and soils.

A copy of the existing EP is provided in **Appendix 1** of this EP variation application. The site plan in Schedule 5 defines the current EP boundary, re-presented in Figure NTS1. The EP boundary is defined by the green line; the wider site ownership boundary is in blue.

Figure NTS1: Existing EP Boundary



1.3 Application Objective

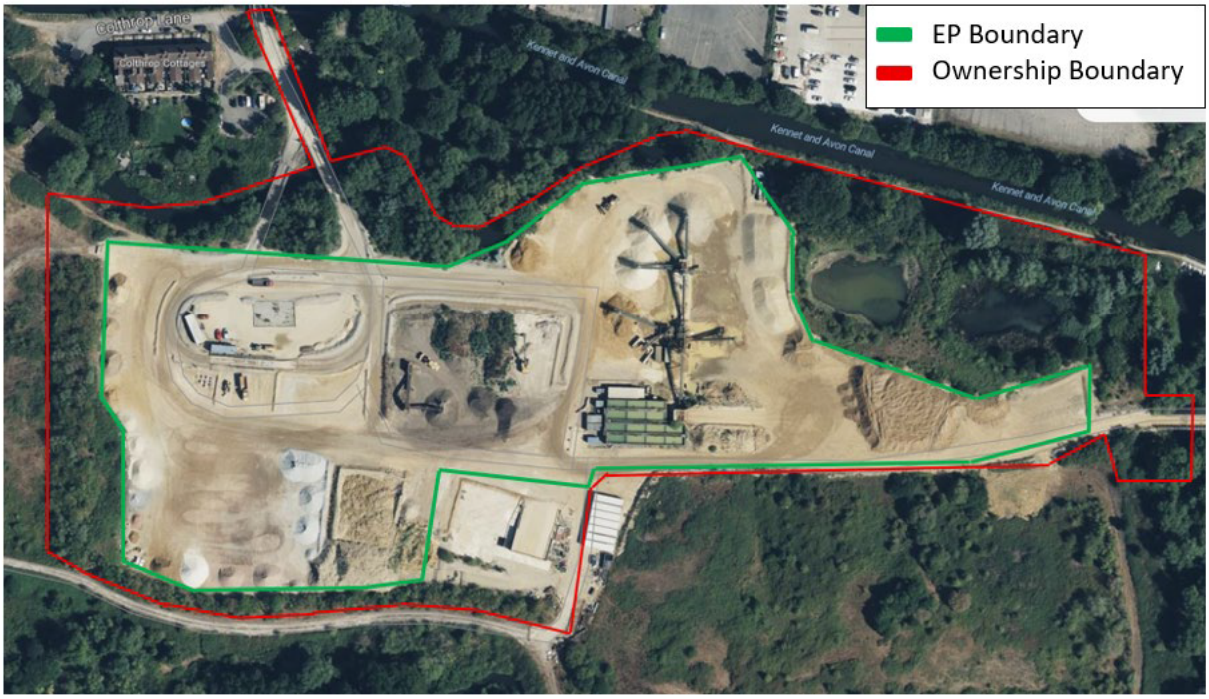
The applicant wishes to augment and expand operations at the site to:

- Add a new, second, Waste Operation to the EP. This comprises the treatment of inert waste through the existing processing plant to the east of the current activity. The existing processing plant is shown in Figure NTS1. This is not permitted as it does not currently process waste materials, only virgin aggregates from the adjacent Kennetholme Quarry. The quarry is at the end of its life; the proposal is to bring inert waste materials through it. The introduction of waste materials brings it into the permitting regime. The existing plant will be augmented by way of additional conveyors and the installation of a wash plant which in turn is supported by a new water treatment plant (WTP) enabling the recycling of the wash water. The WTP is a physical process (a filter press). As for the primary treatment process that is already permitted, the use of the existing processing plant for waste and the wash plant and WTP activities are also a Waste Operation as they facilitate the physico-chemical treatment of non-hazardous waste for the purposes of recovery.
- Increase the throughput of the site, from 15,000 to 120,000 tonnes per year. The increase in treatment capacity does not change the status of the Waste Operations as both are physico-chemical treatment of non-hazardous waste for the purposes of recovery (this is not covered by either Section 5.4 Part A(1)(a)(ii) or Section 5.4 Part A(1)(b)). This increase allows for the treatment capacity that is gained by the processing of inert waste through the existing processing plant.
- Add seven new waste codes (see details in Section 2.3.1 below).
- Increase the EP Boundary to include the existing (unpermitted) processing plant and stockpile areas.

As shown in Figure NTS1, the existing EP boundary is limited to a small area of the land ownership, in the centre portion of the wider site boundary. The move to using the existing virgin aggregate processing plant for waste, the addition of the wash plant (and WTP for the wash water), and the need for increased storage for incoming (untreated) wastes (up to 10,000 tonnes at any one time), requires the EP boundary to be amended.

The revised EP boundary remains within the Grundon ownership boundary. This is shown in Figure NTS2.

Figure NTS2: Proposed EP Boundary



2 Application Form

An application to vary a bespoke waste operation EP requires the completion of the EA application form parts A, C2, C4 and F1. As stated in the guidance notes for the form, details only need to be included in relation to the parts of the existing permit (and permitted activities) that will be affected by the variation application. Details have primarily been provided on the form.

The application form is provided at the front of this EP variation application document.

2.1 Form Part A

The current version (at the time of writing of this NTS) is v16 dated March 2025.

Contact details for the agent and the applicant are provided in this part of the application form. In addition to the information required by Question 6 of the form, details are provided for the Directors as follows:

- Simon Arnold (Director, Secretary) – Date of Birth: [redacted]
- Philip John Atkinson (Director) – Date of Birth: [redacted]
- Neil Norman Grundon (Director) – Date of Birth: [redacted]
- Norman Stephen Grundon (Director) – Date of Birth: [redacted]
- Jonathan Peter Harris (Director) – Date of Birth: [redacted]
- Toni Michelle Robinson (Director) – Date of Birth: [redacted]
- Bradley James Smith (Director) – Date of Birth: [redacted]
- Clayton Sinclair Sullivan-Webb (Director) – Date of Birth: [redacted]

2.2 Form Part C2

The current version (at the time of writing of this NTS) is v15 dated February 2025.

2.2.1 Question 1a

This application process was initiated by Grundon in 2022, at which point a pre-emptive request for pre-application advice was requested from the Environment Agency (EA). The request was limited to nature and heritage conservation screening only. A copy of the response which was received in July 2022 is provided in **Appendix 2** of this application. Given the age of the advice, a check was undertaken prior to submission of this application using magic.gov.uk to identify if any new designations have been granted since the advice was received. This check confirmed that the EA screening results remain applicable.

The application was picked up for duly making checks in June 2025 (18 months after submission) and found to be lacking a number of documents. The EA email dated 6 June 2025, which lists these documents, is also provided in Appendix 2 as this constitutes additional EA advice.

2.2.2 Question 2a

The application being made is considered to fall under the definition of normal variation. The reason for this is that it does not seek to add any new listed activities and, whilst a second waste treatment operation is being added, this is inherently aligned with the recovery operation already permitted.

2.2.3 Questions 3a – 3d

Question 3 is required to be completed where the application seeks to add a waste installation or operation to an EP that has not previously had them. This application is requesting the addition of another treatment process that is effectively a 'new' Waste Operation. This part of the form is therefore applicable and has been completed.

The applicant can confirm that none of the relevant persons listed above have been convicted of any relevant offence, defined in the guidance as being one relating to the environment or environmental regulation.

The applicant can confirm that it can continue to provide sufficient technical ability for the EP following variation. Technical competence is currently demonstrated through the EU skills scheme. A copy of the current Competence Management System (CMS) certificate is provided in **Appendix 3** of this variation application.

The applicant can confirm that none of the relevant persons listed above have/had current/past bankruptcy or insolvency proceeding against them, either in their role for the applicant or as a relevant person for another company.

The applicant operates its existing permitted facilities in accordance with a formal integrated management system. The system is certified by BSi to ISO 14001 for environmental management. The applicant also holds certification for PAS 99 (integrated management), ISO 9001 (quality management), ISO 45001 (occupational health and safety management), ISO 50001 (energy management), and CMS (competence management system scheme). A summary of the management system is provided in **Appendix 4** of this variation application, along with a copy of the certificate for ISO 14001. This is implemented at the Kennetholme site, albeit the site is not currently formally certified.

2.2.4 Question 4

Question 4 requires the provision of an environmental risk assessment (ERA).

There is an existing qualitative assessment in place at the site for the current activities and it follows the EA's source-pathway-receptor model. It was submitted with the 2014 application (Appendix G) for the current EP.

The purpose of this variation application is to add a new Waste Operation (the processing of inert waste through the existing (virgin) aggregate processing plant, and the use of the wash plant and

associated WTP which will enable re-use of the wash waters from the wash plant), to add new waste types, and to increase the throughput of the site significantly. Whilst the new waste types do not present any new risks, the inclusion of waste materials through the existing processing plant and the addition of the wash plant and WTP are new, so this application includes an ERA which assesses the changes and comprises an addendum to the existing ERA. The EA pre-application advice (Appendix 2 of this variation application) identifies three sites that are designated as a SAC, two SSSIs, several LWSs, ancient woodland, and protected species / habitats – all within the EA's screening distance. These have been explicitly considered in the ERA addendum (ref. GR_2021.02/02), a copy of which is provided in **Appendix 7** alongside a copy of the existing ERA to which it applies.

It is noted that the increase to the EP boundary that is sought by this application brings the activities closer in proximity to potentially sensitive receptors. This is addressed in the ERA Addendum.

Due to the nature of the activities, and the proximity of the closest sensitive receptors (Colthrop Cottages to the north), a dust management plan (DMP), and a Noise Impact Assessment (NIA) and noise management plan (NMP) have been produced for the application. These are presented in **Appendices 9 and 10** respectively.

2.2.5 Question 5

Question 5a requires a site report to be produced in the event that the site boundary is being extended. This application does seek to change the EP boundary; a site report is therefore required that covers the additional area of land. A site condition report was submitted for the purposes of the application for the current EP in 2014. This comprised a completed H5 form which referred out to several reports already submitted to the EA for other permitting purposes. Specifically, the EA has been historically provided with the following documents:

- Site Condition Report (Appendix F of the application made for the temporary storage of waste and restoration of the land using inert waste – EPR/AB3730DY). This covered an area of 7 hectares and fully encompassed the ownership boundary. Document ref. 11524290067.502 dated July 2011.
- Groundwater Risk Assessment, dated April 2010, Golder Associates (submitted as Appendix H of the 2014 EP application).
- Contaminated Land Desk Study Assessment of Land at Colthrop Business Park (Golder Associates, January 2005), carried out to satisfy planning condition No.30.

The historical reports all cover the full extent of the facility (ownership boundary) and are applicable to the new area of land to be included in the EP boundary. No new report has therefore been produced for the purposes of this application.

Grundon understands the purpose of appropriately characterising the condition of the land, and recognises the benefit of doing so for future development, including ultimate surrender of the EP. It is, however, comfortable relying on the reports above, as the company has been in control of the activities within the wider (proposed) site boundary for the intervening period and is therefore confident that the historical reports remain representative of the current condition.

Since the 2011 report, there have been no incidents on the site that could have affected the condition of the land. Monitoring is undertaken at the site (relating to the historical landfill activity) and this has not shown any significant changes.

2.2.6 Question 6

Question 6b requires updated site plans to be provided in support of the variation application where appropriate. The application seeks to allow the use of the existing aggregate processing plant for inert

waste, the addition of a wash plant (and associated WTP), the increase in waste storage and treatment, and an increase to the EP boundary.

A set of plans is provided in Appendix 5 of the application as follows:

- Drawing DG/QO/Col/Con36/01: Site Layout Plan, dated March 2024. This shows the location of the aggregate processing plant, the proposed waste plant and WTP, and the waste storage area.
- Drawing DG/QO/Col/Con36/02A: Processing Plant Layout Plan, dated March 2024. This details the elements of the processing plant, wash plant and WTP.
- Drawing DG/QO/Col/Con36/02B: Processing Plant Layout Plan, dated March 2024. This is a simplified version of 02A above.
- Drawing DG/QO/Col/Con36/03: Processing Plant Elevation, dated March 2024.
- Drawing E2300-PGA-001-01 to 07: Plant Layout and Elevation Plans, dated June 2025. These are a set of detailed design drawings for the processing plant, wash plant and WTP.

Appendix 5 also includes a process flow diagram (PFD) which covers all the existing EP activities and the proposed amendments.

Question 6c requires the submission of a fire prevention plan if the facility includes the storage of combustible waste. This is not applicable to this application; the waste processed at the site is not combustible.

2.2.7 Question 7

Question 7 requires confirmation of the sewerage undertaker where a discharge is part of the activity being applied for. This is not applicable to the existing recycling facility as there is no foul water discharge. To confirm, the area does not have a specific drainage scheme as surface water infiltrates into the underlying material.

Water used for the washing of waste materials by the new wash plant will be directed to the new WTP that will remove the solids such that the treated water can be recycled back through the wash plant. The wash plant will require up to 20 m^3/hour of top up water. This will be either mains supplied or from the applicant's licenced abstraction.

Due to this recirculation/closed loop system, no discharge consent is required because of this application.

2.3 Form Part C4

The current version (at the time of writing of this NTS) is v13 dated August 2020.

2.3.1 Question 1 – Variation Description

As detailed in Section 1.3 of this NTS, the existing permit is for a Waste Operation in which non-hazardous materials are stored, crushed, and segregated/screened. The current EP limits throughput to 15,000 tonnes per year.

The application seeks to add a new, second, Waste Operation comprising the processing of inert waste through the existing aggregate plant and utilising a new wash plant with WTP.

The proposal to increase the throughput capacity from 15,000 to 120,000 tonnes per year doesn't change the status of the permit from being one for a waste operation, as it applies to the existing and proposed Waste Operations, both of which are for the physico-chemical treatment of waste for the purposes of recovery. It is noted that whilst this is a significant increase for the EP, the site as a whole is able to process 200,000 tonnes per year under the current planning permission and including the virgin aggregate processing plant. It has operated close to this throughput historically.

No daily processing limit is applied in the current EP; for the purposes of completing Table 1a of the form, an estimate has been made of up to 1,000 tonnes per day. Realistically it will be closer to 600 – 700 tonnes per day but a higher allowance is included to allow for operational variation and therefore to allow flexibility.

The existing permitted waste types are set out in Table S2.1 of the EP. This application requests the addition of the following non-hazardous wastes:

- 17 05 04 - soil and stones other than those mentioned in 17 05 03
- 17 05 06 – dredging spoil other than those mentioned in 17 05 05
- 17 05 08 – track ballast other than those mentioned in 17 05 07
- 17 09 04 – mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
- 19 08 01 – screenings
- 19 08 02 – waste from de-sanding
- 20 02 02 – soil and stones

These will all be processed through the wash plant, supported by the new WTP. The EP currently permits the acceptance of 19 12 12. It is noted that where the 75 tpd limit is exceeded for this waste code, it would become a listed activity. Grundon can confirm that there is no intention to accept significant quantities of this waste (if any), so propose that a specific limit is applied to 19 12 12 in the resultant varied EP.

2.3.2 Question 2- Emissions

The only new piece of plant to be installed at the site is the wash plant (which includes the WTP and additional conveyors to facilitate the process).

The process is described above and, on the drawings, and PFD in Appendix 5. The process is one in which feedstock is subjected to varying screen sizes, and washed, to produce a range of grades of output material. Wash water from this screening and washing of the incoming waste stream will be directed to the WTP which will remove the silt from it by way of filter press.

The treated water is stored in two buffer tanks and recycled back through the waste treatment process as wash water; the silt removed from the wash water will be either blended with the outgoing product or will be sold on its own as a product. Storage provision for 2000 – 3000 tonnes of silt materials is made in the application and shown on the site layout plan.

This is a closed loop system in terms of emissions to water. There are also no point source emissions to air.

2.3.3 Question 3a – Operating Techniques

Question 3a relates to operating techniques. The techniques that would be applied to the acceptance and storage of the new waste types are unchanged from those already permitted, therefore the techniques referred to in Table S1.2 of the permit remain relevant and applicable. The increased throughput does not alter the procedures and processes either. The crushing and screening of non-hazardous materials in the existing EP area has already been assessed and deemed to represent BAT by way of the grant of the existing EP. The proposed new waste operation introduces an activity not previously considered; details of this process are therefore provided in 2.3.3.1 and demonstration given as to how it meets the standards set out in the relevant sector guidance (EPR 5.06) relating to:

- Provision and maintenance of suitable infrastructure.

- Operational control of the treatment process.
- Disposal of effluents.

2.3.3.1 Treatment of Waste (including use of Wash Plant & Water Treatment Plant)

The process is described above and, on the drawings, and PFD in Appendix 5.

Incoming feedstock will be stockpiled. Visible oversized material (>80 mm) will be removed and stockpiled. The waste material will be loaded onto the pre-screen (to remove fines <6 mm). The remaining screened feedstock will be conveyed to the feed belt and will move to the 'Rinserdeck' where it will be washed. There is a trash screen at this point in the process. This is a vibrating deck screen that removes any small organic fraction from the aggregate. From here, the material moves to a log wash which is a twin screw mechanical process (with water feed) that separates minerals from clays. The aggregate is then processed through the existing processing plant using a series of screens to separate it into various grades, from <10 mm, through 10 – 20 mm, 20 – 40 mm, to oversized >50 mm. Wash water from this screening and washing of the incoming waste stream will be directed to the WTP which will remove the silt from it by way of a filter press.

The spent wash water (silt laden) from the washing and screening of aggregate in the existing plant will pass to a sump. A pump located within the sump, will then pump the wash water to a settling pond. This is the current provision for wash waters, and the water is permitted to soak into the ground. With the introduction of aggregate washing, the wash water will be more silt laden, and therefore the intention is to remove the silt from the water to allow the water to be reused in the wash plant.

Due to the varying sources of recycled aggregates, the makeup of the feedstock will fluctuate with each load. The expectation of the water treatment plant is that it will be capable of managing up to 30 tonnes per hour of fines (silt) based on a maximum wash water silt content of 30%.

The treatment system will be a purely physical one and will utilise a filter press process. This is a batch process solution which can produce an up to 40% dry solids cake. This separation option is considered to be appropriate for this application. A copy of the specification for the WTP is provided in **Appendix 8**. It will need to be dosed with a flocculant to aid the separation process; a safety data sheet (SDS) for a flocculant typically used for this type of plant is also provided in Appendix 8.

The de-silted water will be pumped to a storage tank for use in the wash plant, whilst the silt will be conveyed from the WTP and either blended with the outgoing soil product or will be sold on its own as a product. In addition to this, a requirement of the specification for the treatment plant is that it must be able to pump up to 3% of the silt back on onto the ultra-fine sand line at the facility.

Storage provision for 2000 – 3000 tonnes of silt materials is made in the application and shown on the site layout plan.

A process flow diagram is provided for the process, including the wash plant and WTP, alongside the set of site plans, in **Appendix 5** of this application. The plant will be incorporated into the EMS for the site, specifically the planned maintenance and inspection processes that are already in place to ensure that all plant and equipment is maintained in good working order and efficiency is optimised.

The operation of the processing plant for waste materials, and the wash plant and WTP, will introduce new equipment; this will be powered by mains electricity, utilising existing power infrastructure. The plant will connect to the main site distribution panel at the site; all electrical motors will be a reputable make and will have IEC/NEMA standard fittings; they will also be rated IE3 or higher for energy efficiency.

There will be efficiencies resulting from the new plant being able to make use of much of the existing infrastructure, for example existing pumps and tanks will be utilised where possible as will existing site lighting and facilities. LED lighting will be supplied as part of the plant to enable safe operation at

night. Energy use is monitored at the site and reviewed on a regular basis to identify any inconsistencies and/or opportunities for improvement.

2.3.4 Question 3b – General Requirements

There is an Emission Management Plan (EMP) in place that covers the whole of the site, not just the facility that is the subject of this EP application. The most recent review of the EMP at the site was in the application for the current Kennetholme Quarry Recycling Facility EP in 2014 (Appendix G of that application). The EMP includes detailed monitoring regimes for groundwater, surface water and emissions. The 2014 application assessed whether the operation of the recycling facility would result in any changes in risk to the surrounding environment and the review concluded that there would be no changes to the EMP.

Whilst this application seeks to increase the throughput of the site, and the use of screening and washing plant and a WTP, operations will still be within the limits specified in the planning permission regarding hours, noise etc. The additional EWC codes are for wastes that are consistent with the existing waste stream, so this doesn't present any new risks either. The operation of the new wash plant and WTP will introduce new equipment. It is a closed loop system in terms of emissions to water. Wash waters produced in the plant will be stored in the existing permitted storage tanks prior to re-use in the wash plant. There is no discharge to land or storage lagoon nor any connectivity to ground water. There are also no point source emissions to air.

The filter press has been identified as a primary noise source. This, together with the increased throughput and the increased proximity to potentially sensitive receptors resulting from the increase in the EP boundary, has resulted in the production of a specific dust management plan (DMP) and Noise Impact Assessment (NIA) and noise management plan (NMP), provided in Appendices 9 and 10 respectively.

In relation to raw materials, the water treatment plant will be a settlement process which will separate the silt content from the wash water. Flocculent will be used to aid this process however quantities are not yet known. A safety data sheet (SDS) for a flocculant typically used for this type of plant is provided in Appendix 8 of this application. The applicant will monitor the use of raw materials as an ongoing activity and will carry out regular reviews to identify any changes or anomalies, and to review alternatives that may offer a better environmental option at that time.

2.4 Form Part F1

The application fee has been identified using the April 2022 EA Charging Scheme. The proposed changes do not change the activities from being a Waste Operation, as they are currently permitted. This variation instead is seeking to add new techniques to the existing Waste Operation EP; and is therefore considered to be a normal variation. The applicable fee is defined as the total of the following elements:

- Normal variation to the existing Waste Operation, physical treatment of non-hazardous waste, Table 1.16 of the Charging Scheme, ref. 1.16.12. The associated normal variation application fee is £3,965.
- Application fee to add a second Waste Operation, physical treatment of non-hazardous waste, ref. 1.16.14. The new application fee is fixed at £7,930.
- Habitat Assessment (review) fee, Table 1.19 of the Charging Scheme, ref. 1.19.2 - £779.
- Dust and Emissions Management Plan (assessment) fee, ref. 1.19.5 - £1,241.
- Noise Management Plan (assessment) fee, ref. 1.19.7 - £1,246.

Payment of £3,965 has already been made by BACs, reference PSCAPPGRUND001 dated December 2023. Payment of the additional £11,196 has been made by BACS, reference PSCAPPWASTEGRUND002.