

Caulmert Limited

Engineering, Environmental & Planning

Consultancy Services

Welbeck Soils Treatment Facility

Welbeck Waste Management Limited

Environmental Permit Variation Application

Non-Technical Summary

Prepared by:

Caulmert Limited

14 Farrington Way, Eastwood Link Business Park, Eastwood, Nottinghamshire, NG16 3BF

Tel: 01773 749132

Email: andystocks@caulmert.com

Web: www.caulmert.com

Document Reference: 4259-CAU-XX-XX-RP-V-0301-A0.C1

September 2020

APPROVAL RECORD

Site: Welbeck Landfill Site

Client: Welbeck Waste Management

Project Title: Welbeck Soils Treatment Facility

Document Title: Non-technical Summary

Document Ref: 4259-CAU-XX-XX-RP-V-0301-A0.C1

Report Status: **Final**

Project Manager: Andy Stocks

Caulmert Limited: 14 Farrington Way, Eastwood link Business Park, Eastwood,
Nottinghamshire, NG16 3BF

Tel: 01773 749132

Author	Kellie-Marie Burston	Date	12/03/2020
Reviewer	Andy Stocks	Date	17/03/2020
Approved	Andy Stocks	Date	17/03/2020

DISCLAIMER

This report has been prepared by Caulmert Limited with all reasonable skill, care and diligence in accordance with the instruction of the above named client and within the terms and conditions of the Contact with the Client.

The report is for the sole use of the above named Client and Caulmert Limited shall not be held responsible for any use of the report or its content for any purpose other than that for which it was prepared and provided to the Client.

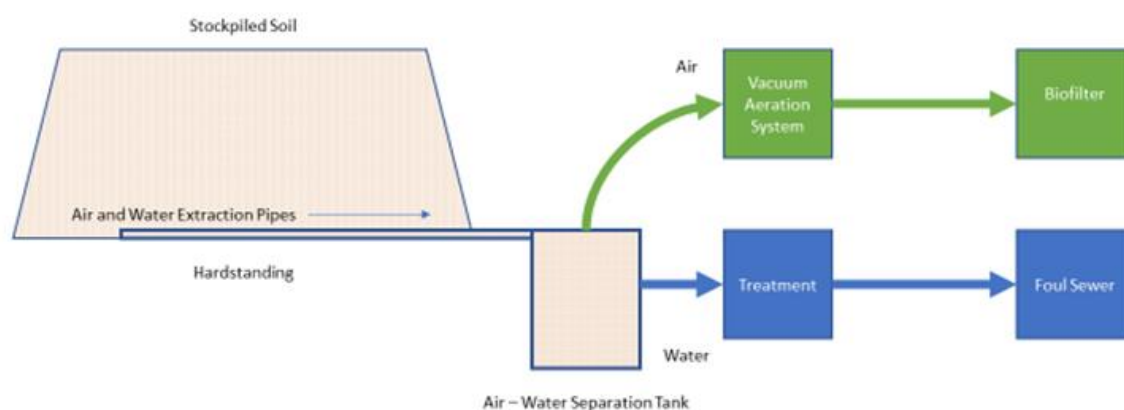
Caulmert Limited accepts no responsibility of whatever nature to any third parties who may have been made aware of or have acted in the knowledge of the report or its contents.

No part of this document may be copied or reproduced without the prior written approval of Caulmert Limited.

Non-Technical Summary

- 1.1.1 Welbeck Landfill Site is situated in a former mineral extraction site that lies within the valley of the River Calder in a relatively urban area. The site lies 3km northwest from Wakefield and 2.5km west-southwest of Normanton. The permit; EPR/WP3330BZ, for Welbeck landfill Site was first issued to Welbeck Waste Management Limited on the 9th November 2005.
- 1.1.2 This variation application is for the proposed operation of a Soils Treatment Facility located on an existing impermeable pad (previously permitted for the storage of IBA), which is capable of treating up to a maximum of 29,999 tonnes per annum of hazardous soils.
- 1.1.3 Landfill permit includes Section 5.3 Part A(1) (a) (i) activity for leachate treatment in addition to the 5.2 landfill activity. The permit currently permits the acceptance of waste as a recovery operation in accordance with the Restoration Plan.
- 1.1.4 It is proposed to add the following listed activities to the current permit to facilitate this proposed operation:
- Section 5.6 Part A (1) (a) – Temporary storage of hazardous waste with a total capacity exceeding 50 tonnes pending any of the activities listed in Sections 5.1, 5.2 and 5.3;
 - Section 5.3A(1)(a)(ii) - Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving biological treatment.
- 1.1.5 In addition to above, the screening of soils will also be carried out at Welbeck Soils Treatment Facility. During Pre-application discussions with Environmental Permitting Officer, Bethany Smith, it was agreed that as the screening of soils will only take place after the biological treatment process, it can be included as a an Directly Associated Activity (DAA) as opposed to a listed activity.
- 1.1.6 The STF will accept up to 29,999 tonnes/annum of hazardous soils. The maximum treatment time for soils is 6 months in general with the majority being treated in periods of between 8-16 weeks and will be carried out on the existing pad at Welbeck Landfill Site. The existing pad was proposed to be utilised for the temporary storage of Incinerator Bottom Ash (IBA) with no treatment activities proposed. A variation application was made under the existing standard rules permit SR2008No16_75kte however no storage operations took place. The soil treatment facility will be located on the former composting pad already in place at the site.
- 1.1.7 In addition, the activities on site require amounts of resources and raw materials as part of the bioremediation treatment process. These include wood off-specification compost, street cleaning residues and wood other than mentioned in 19 12 06.

- 1.1.8 The entire treatment activity will cover an area of approximately 8000m² which includes; a biotreatment area (7500m²) a biofilter area (475m²) Storage area (40m²) and equipment. The proposed site layout can be seen in drawing ref: 4259-CAU-XX-XX-DR-V-1802.
- 1.1.9 The proposed bioremediation process will utilise industry standard biopile technology and will operate through the use of biopiles and moisture control, addition of suitable nutrients to the soil and forced air extraction to encourage micro-organism growth leading to the breakdown of hydrocarbons into by-products such as carbon dioxide and water vapour.
- 1.1.10 The biopiles will be placed on water and air extraction pipes connected to a blower that will draw air through the soils where it is then passed through a biofilter before being discharged to air. Excess water draining through the soils will be collected and treated to remove any oils or suspended solids.
- 1.1.1 Surface water runoff associated with the proposed activities will be collected and treated before being discharged into the Welbeck Landfill Site leachate lagoon, which then ultimately pumps into the existing foul sewer system.
- 1.1.2 Water resulting from the soil remediation process, along with rainwater that falls on the soil treatment area, would be collected by a sump constructed into the base of the engineered slab. The perimeter drain is constructed with pipework of 160mm outside diameter SDR11 slotted/perforated HDPE collection pipework with an aggregate drainage layer. From the sump, all waters will be treated through primary settlements and sand/carbon filtration in the on-site water treatment plant. From the treatment plant, water will be pumped to the leachate lagoon located in the south of the Welbeck Landfill Site. From the leachate pond, the water will be pumped over the River Calder into Yorkshire Water's foul water as agreed under the existing discharge consent
- 1.1.11 Details of the composting pad layout and construction, collection sump and external bund are indicated in the 'Proposed Slab Layout and Construction Details' drawing ref: 391D_RN_CS_01.



1.1.12 The point emissions from the STF include process water, surface water collection and air emissions from the biofilter as well as dust and odour from general site works. The monitoring for these processes includes:

- Biofilter sampling (from exhaust vents)
- Process water sampling
- Visual and olfactive daily assessment for dust and odour on site.
- Dust monitoring

1.1.13 This application proposes a list of hazardous wastes to be accepted at the STF facility, which is included within the Supporting Document, ref: 4259-CAU-XX-XX-RP-V-0300 of this application.

1.1.14 Risk assessments have been provided to accompany this permit variation along with a Site Condition Report.

1.1.15 An assessment has been undertaken to confirm compliance of the proposed new contaminated soils treatment facility at Welbeck Landfill site with the sector guidance note for the recovery and disposal of hazardous and non-hazardous waste (SGN 5.06).

1.1.16 Welbeck Landfill site and the associated activities on site are managed by the Operator in accordance with a management system which meets the standard set in the Environment Agency Guidance 'Getting the Basics Right'.

1.1.17 The Operator manages and operates a quality management system which complies with the requirements of ISO 9001:2008 and an environmental management system which complies with the requirements of ISO 14001:2004, both are certified by BSI, a UKAS accredited auditing company.

1.1.18 The Operator will also implement a number of site-specific procedures and documents to control the operations at the site. A summary of the Management system is detailed within the application.