EPR PERMIT VARIATION APPLICATION EPR/SP3336SN

Crapper and Sons Landfill Ltd
Park Grounds Landfill

Prepared by:
Sol Environment Ltd

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NON TECHNICAL SUMMARY

This document has been prepared on behalf of Crapper and Sons Landfill Ltd by Sol Environment Ltd and provides supporting evidence as required by Environment Permit Application Forms Part C2 and C3 issued by the Environment Agency (EA).

Crapper and Sons is making this application to carry out a '*Normal*' Variation of their existing EPR permit under The Environmental Permitting (England and Wales) Regulations 2018 (as amended) in order to increase the total quantity of waste accepted and disposed at site as well as extending the landfilling area.

The Crapper and Sons Site (*'the Site')* is located at Park Grounds Landfill, Brinkworth Road, Royal Wootton Bassett, Wiltshire, SN4 7SB.

The landfill is currently permitted under Permit EPR/SP3336SN to accept 17,000 tonnes per annum of non-hazardous waste and 6,000 tonnes per annum of inert waste. The purpose of this application is to make the following changes:

- Increase the amount of waste accepted on site to 60,000 tonnes of non-hazardous waste and 20,000 tonnes of inert waste; and
- Extend the existing landfill to generate approximately 250,000m^3 of additional void space.

The current landfill area comprises 13 cells (Cells 1 to 10, 1A, 1B and an asbestos cell). The site is filled with non-hazardous waste commencing in the southwest and following a roughly clockwise direction. A small asbestos cell is located towards its centre. Landfilling is currently being undertaken in Cell 9 and Cell 10 has been engineered to accept waste.

A further five cells (Cells 11 to 15) occupy the western extension area. These five cells are located in the landfill extension area relating to this permit variation.

Crapper and Sons operate waste management activities (regulated by a separate permit) adjacent to the landfill site which currently includes a materials recycling facility, composting facility, wood processing operations and a gasification plant. Residual inert and semi-inert materials that are incapable for use in recycling are transferred to the landfill for disposal.

The Landfill meets the description of an Installation as defined by Section 5.2 '*Disposal of Waste by Landfill*' Paragraph A (1) (a) namely;

'The disposal of waste in a landfill –

i. Receiving more than 10 tonnes of waste per day, or

ii. With a total capacity exceeding 25,000 tonnes.

Emissions to Air

Beyond potential landfill gas emissions, there are no process emissions to air arising for the Installation.

An updated Landfill Gas Risk Assessment has been produced as part of this permit variation. Although the site is well protected with respect to lateral migration it is considered prudent to assume that there is some, if limited, potential for lateral gas release. As a result, the risk assessment has been completed via consideration of the source-pathway-receptor linkage according to DEFRA and EA guidance.

Emissions to Controlled Water

The drainage system across Park Grounds Farm comprises four ephemeral streams that carry water only during and after storms. These are diverted around the operating cells and into the local drainage ditches. Therefore, surface water cannot become contaminated by contact with the leachate resulting in there being no process emissions to controlled water.

The floors of all the non-hazardous cells are graded to provide a fall to the leachate collection sump. Leachate is further directed to the sumps via a herringbone drainage system comprising high density polyethylene (HDPE) pipe with a coarse gravel surround. Once the leachate has reached the action levels in the cells, it is removed by pumping from the leachate chimney and treated by recirculation onto the surface of the waste.

Emissions to Land

The site follows strict monitoring requirements in order to minimise the effect of emissions to land from the landfill. These are detailed in *Section 5 – Environmental Monitoring* of this Application Support Document.

1 INTRODUCTION

This document has been prepared on behalf of Crapper and Sons Landfill Ltd *('Crapper and Sons'* hereafter) by Sol Environment Ltd and provides supporting evidence as required by Environmental Permit Application Forms Part C2 and C3 issued by the Environment Agency (EA).

Crapper and Sons is making this application to carry out a '*Normal'* Variation of their existing EPR permit under The Environmental Permitting (England and Wales) Regulations 2018 (as amended) in order to increase the total quantity of waste accepted and disposed at site as well as extending the landfilling area.

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The landfill is currently permitted under Permit EPR/SP3336SN to accept 17,000 tonnes per annum of non-hazardous waste and 6,000 tonnes per annum of inert waste. The purpose of this application is to make the following changes:

- Increase the amount of waste accepted on site to 60,000 tonnes of non-hazardous waste and 20,000 tonnes of inert waste; and
- Extend the existing landfill to generate approximately 250,000m^3 of additional void space.

The current landfill area comprises 13 cells (Cells 1 to 10, 1A, 1B and an asbestos cell). The site is filled with non-hazardous waste commencing in the southwest and following a roughly clockwise direction. A small asbestos cell is located towards its centre. Landfilling is currently being undertaken in Cell 9 and Cell 10 has been engineered to accept waste.

A further five cells (Cells 11 to 15) occupy the western extension area. These five cells are located in the landfill extension area relating to this permit variation.

Crapper and Sons operate waste management activities (regulated by a separate permit) adjacent to the landfill site which currently includes a materials recycling facility, composting facility, wood processing operations and a gasification plant. Residual inert and semi-inert materials that are incapable for use in recycling are transferred to the landfill for disposal.

The Installation meets the description of an Installation as defined by Section 5.2 '*Disposal of Waste by Landfill*' Paragraph A(1)a namely;

'The disposal of waste in a landfill –

i. Receiving more than 10 tonnes of waste per day, or

ii. With a total capacity exceeding 25,000 tonnes.

The remainder of this application support document is structured accordingly:

- *Section 2:* Provides a detailed planning and permitting history of the site and associated activities;
- *Section 3:* Provides specific nature of the proposed changes associated with the Variation Application;
- *Section 4:* Provides specific nature and detailed description of the emissions to air and water associated with the installation;
- *Section 5:* Provides details of all environmental monitoring associated with the Installation; and
- *Section 6:* Provides an Environmental Impact and Assessment of the Installation.

All technical appendices associated with the Installation are included within the Annexes of this document and comprise the following:

- *Annex A:* Figures;
- *Annex B1*: Flood Risk Assessment;
- *Annex B2:* Environmental Setting and Site Design Report (ESSD);
- *Annex B3:* Hydrogeological Risk Assessment (HRA);
- *Annex B4:* Stability Risk Assessment (SRA);
- *Annex B5:* Landfill Gas Risk Assessment (LGRA);
- *Annex B6:* Closure and Aftercare Procedures;
- *Annex B7:* Site Condition Report;
- *Annex C1:* Working Plan;
- *Annex C2:* Accident Management Plan;
- *Annex C3:* Odour Management Plan;
- *Annex C4:* Dust Management Plan;
- *Annex D:* Previous Permits;
- *Annex E:* Competence.

The site location and the boundary of the installation is provided overleaf in Figure 1.1, 1.2 and 1.3.

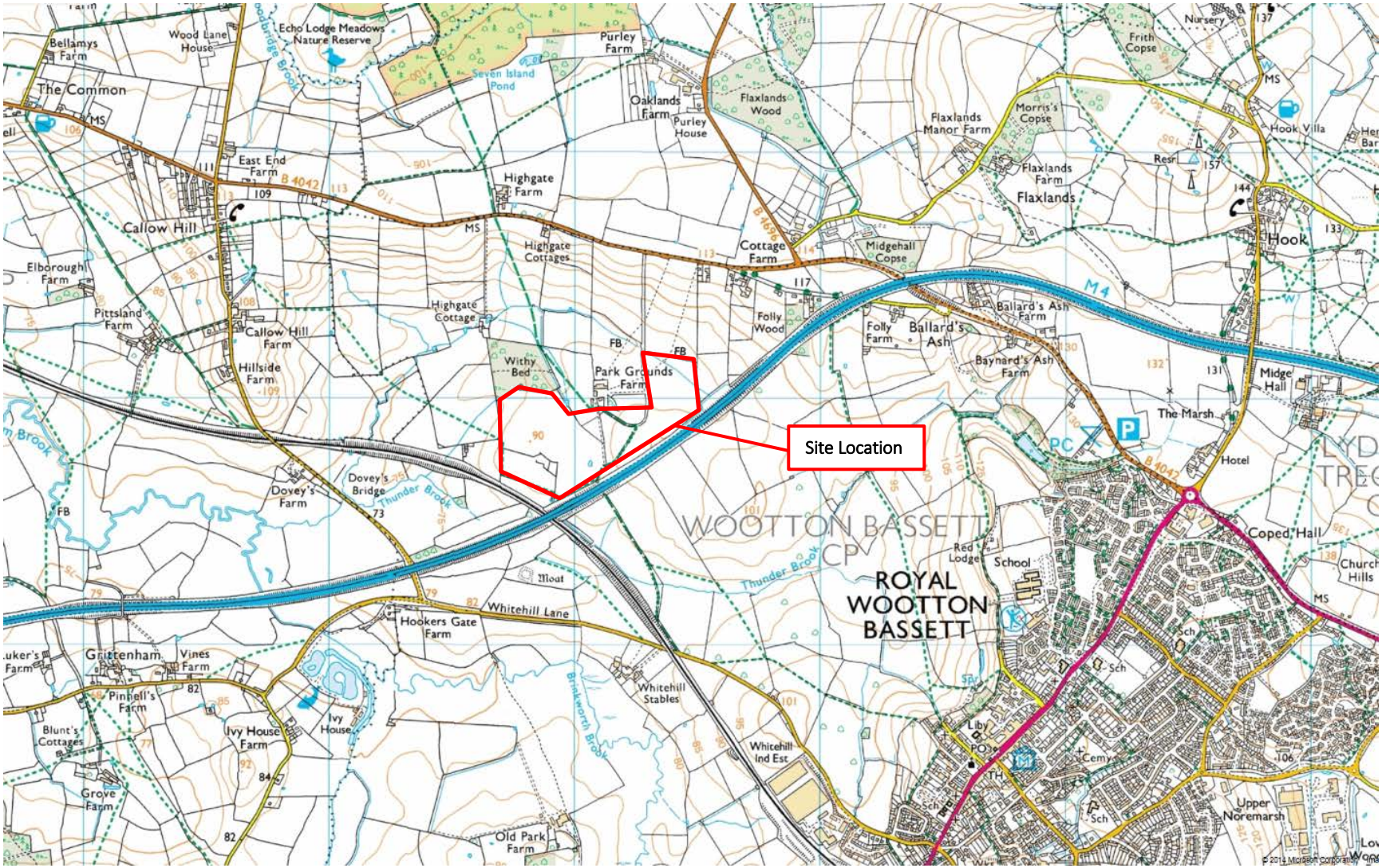

Figure 1.1: Site Location

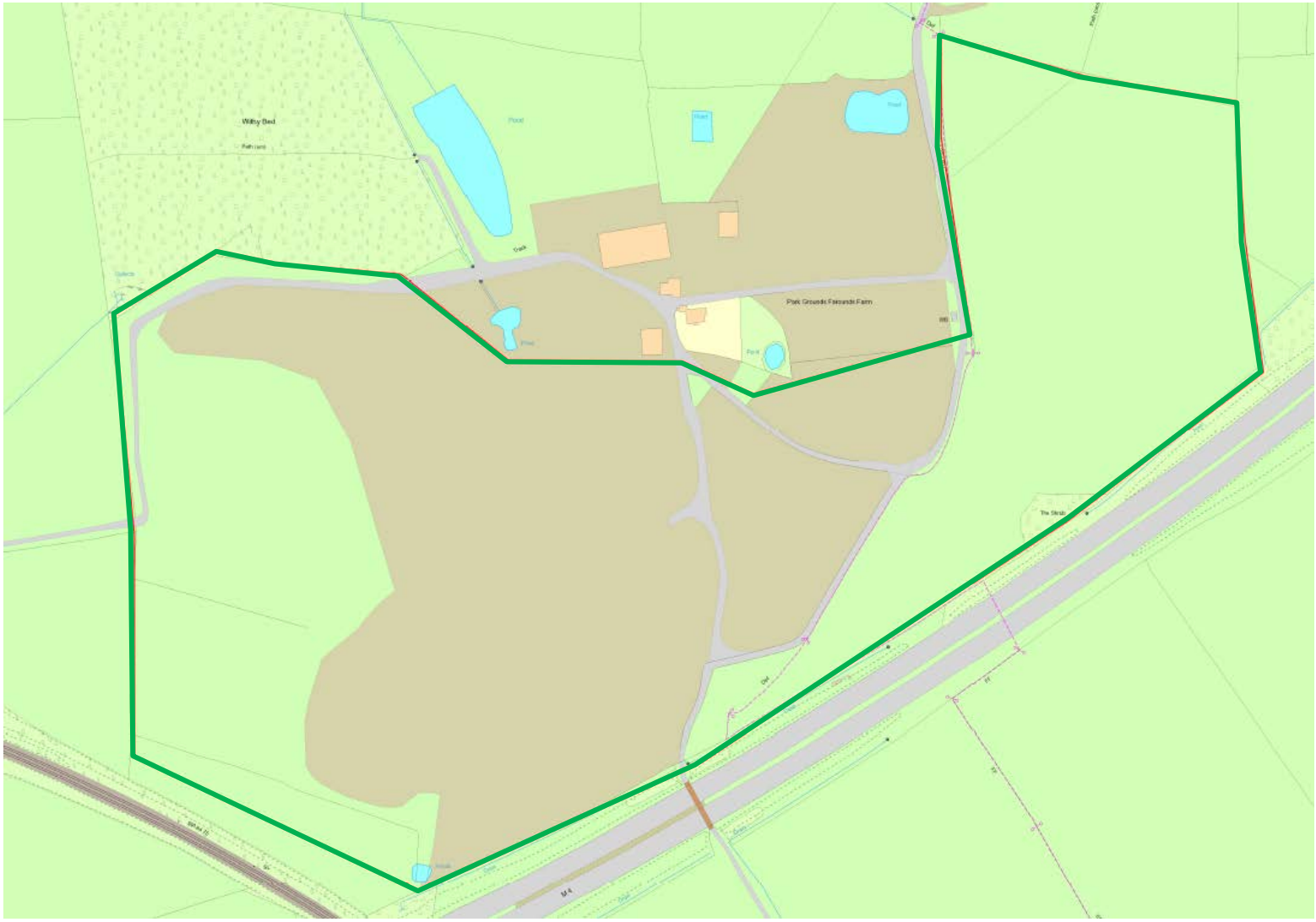

Figure 1.2: Proposed Installation Boundary

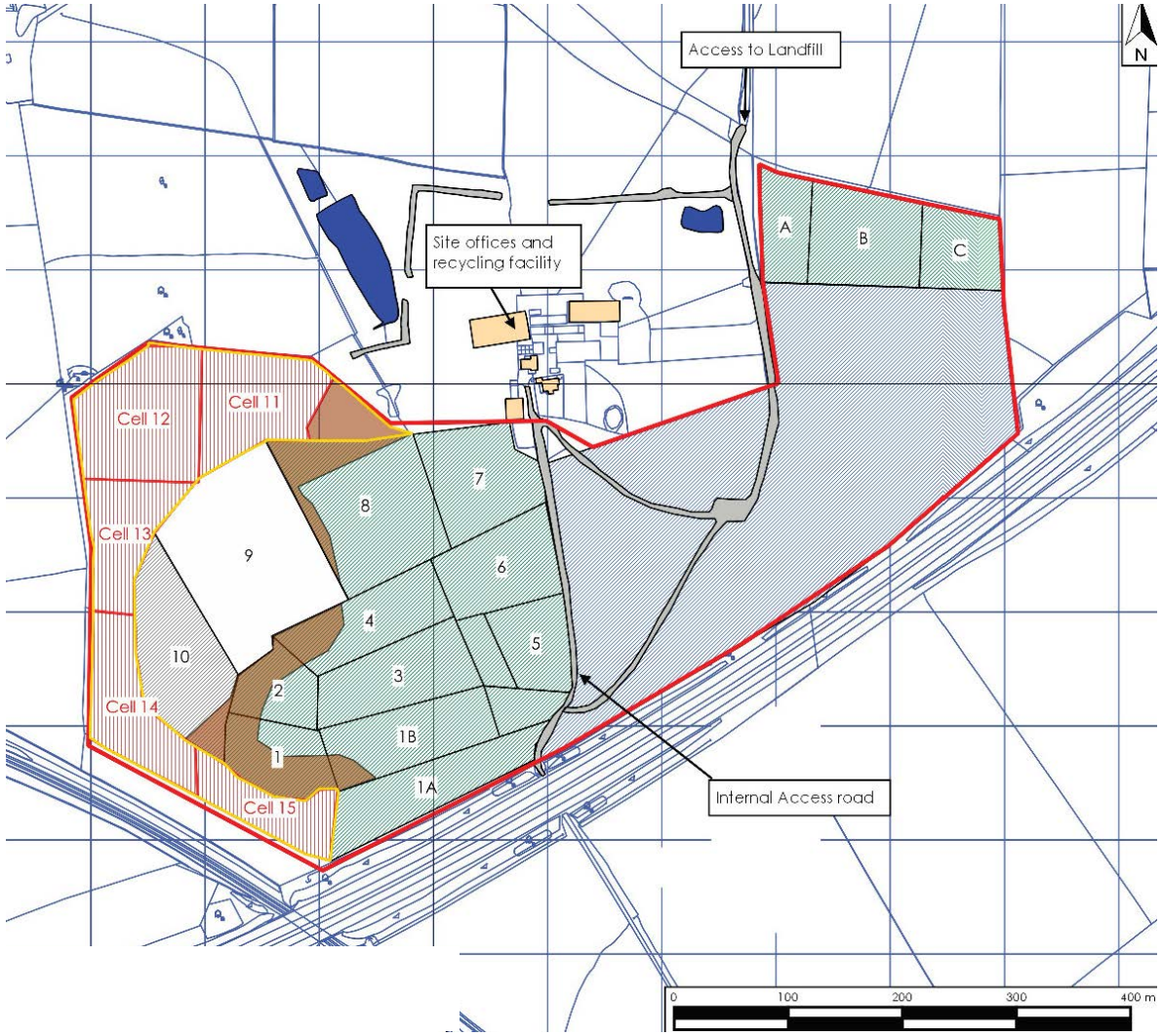

Figure 1.3 Site Layout

2 PERMITTING & PLANNING HISTORY

The sites permitting and planning history is provided in Table 2.1(a) and Table 2.1(b). The changes brought about by this variation do not constitute a material change to the existing planning consent at the site.

The most recent permits and planning permissions have been included within *Annex D – Previous Permits* of this document and the details pertaining to all known planning permissions are provided in Table 2.1 below.

Table 2.1(a): Permitting History

Reference	Description	Status	Date Granted
EPR/SP3336SN/V006	[This] Permit Application	-	-
EPR/SP3336SN/V005	Environmental Agency Landfill Sector Review Varied and consolidated permit issued in modern condition format	Granted	17/04/2015
EPR/SP3336SN/V004	Variation to extend landfill to include Cells 7, 8, 9 and 10 and increase annual tonnage	Granted	06/12/2011
EPR/SP3336SN/V003	Variation to extend landfill to include Cells 7, 8, 9 and 10	Application returned	-
EPR/SP3336SN/V002	Agency initiated template variation	Granted	28/03/2008
EPR/SP3336SN	Application for Landfill	Granted	07/04/2006

Table 2.1(b): Planning History

Reference	Description	Status	Date Granted
17/03557/WCM	Extension to Existing Landfill Site and Modifications to Approved Landfill Contours	Granted	02/08/2017
N/09/07004	Extension of existing approved landfill	Granted	27/03/2009
N/05/07005	Extension of landfill site to form noise barrier without compliance with Condition 3 of planning permission 99.213. Extend period of operations by further five years.	Granted	15/03/2005
N/90/00703	Landfill extension for waste from construction industry	Granted	25/06/1990
N/88/00844	Landfill with controlled waste from construction industry	Granted	27/06/1988

3 DESCRIPTION OF VARIED ACTIVITIES

3.1 Schedule References

Crapper and Sons is making this application to carry out a 'Normal' Variation of their existing EPR permit under The Environmental Permitting (England and Wales) Regulations 2018 (as amended) in order to increase the total quantity of waste accepted and disposed at site as well as extending the landfilling area.

The landfill is currently permitted under Permit EPR/SP3336SN to accept 17,000 tonnes per annum of non-hazardous waste and 6,000 tonnes per annum of inert waste. The purpose of this application is to make the following changes:

- Increase the amount of waste accepted on site to 60,000 tonnes of non-hazardous waste and 20,000 tonnes of inert waste; and
- Extend the existing landfill to generate approximately 250,000m^3 of additional void space.

Table 3.1 Activities

Activity listed in EP Regulations 2013	Description of specified activity	Limits of specified activity	Specified waste management operation
Section 5.2 Part A (1) (a) The disposal of waste in landfill	Landfill for non-hazardous waste and landfill restoration	Receipt, handling, storage and disposal of wastes, consisting of the types and quantities specified in conditions 2.6, as an integral part of landfilling	D5 – Specially engineered landfill R10 – Land treatment resulting in benefit to agriculture or ecology
Directly Associated Activity			
N/A	Recirculation of leachate	Leachate arising from the landfill	N/A

All waste activities carried out at the site i.e. waste reception, associated storage, disposal are all considered to be technical linked to the main activity and are included within the installation boundary of the site.

3.2 Details of the Installation

3.2.1 Installation Boundary

There will be an increase in the existing installation boundary of the existing permit as a result of this permit variation. This increase will include land to the west and north of the current boundary. Figures showing the proposed Installation Boundary has been provided in Section 1, Figure 1.2.

Due to the changes in the Installation Boundary, an updated H5 assessment has been provided within *Annex B7 – Site Condition Report*.

3.2.2 Infrastructure and Design

Proposed Drainage

A large proportion of the existing restored landfill site currently drains to a balancing pond to the north west of the development. This discharges into a stream which then links to Thunder Brook. Under the proposals for the extended landfill, run-off from the whole of the landfill will be redirected away from the development by perimeter ditches towards a watercourse on the western side of the landfill.

The landfill will be capped off with an impermeable layer to ensure that rainwater does not penetrate the non-hazardous waste material on site. This will ensure that the run-off will not pose a risk of contamination to groundwater. The capping of the site will increase the rate at which surface water will run-off and therefore this will need to be controlled to ensure that there is no risk of flooding downstream of the site.

Surface water will be collected into perimeter ditches. As explained in above, measures are deemed to be necessary to prevent infiltration of surface water into the imported waste material. Therefore, the ditch system will be located outside the landfill to prevent infiltration into the waste. Where the ditch needs to be formed on the cap to account for minor variations in perimeter levels, the cap will be thickened locally to allow the formation of the ditch without compromising the existing cap. Details of this are provided within *Annex B1 – Flood Risk Assessment.*

As the capping of the site will result in no infiltration of the waste, there will be 100% run-off during major storm events. Therefore, the rate of run-off will be very high and will need to be controlled to prevent flooding downstream of the development. To achieve this, surface water from the development will be attenuated in a balancing pond and discharged to the watercourse to the west of the site at a green-field run-off rate. Vortex flow controls will be used to limit surface water flows into the watercourse at this rate.

The Flood Risk Assessment that was produced for the landfill extension planning application is provided in *Annex B1 – Flood Risk Assessment.*

Leachate Drainage

The floors of all the non-hazardous cells are graded to provide a fall to the leachate collection sump. Leachate is further directed to the sumps via a herringbone drainage system comprising high density polyethylene (HDPE) pipe with a coarse gravel surround. Once the leachate has reached the action levels in the cells, it is removed by pumping from the leachate chimney and treated by recirculation onto the surface of the waste.

Closure and Aftercare

When the cells are closed, clay extracted from the floor of the new cell will be used to provide a capping layer for the cell and a layer of subsoil and topsoil will be applied and grassed over. Once complete, the site will be returned to agricultural use as soon as possible.

Similar restoration work has already been successfully completed on the closed parts of the landfill. The closure process consisted of a land raising operation, infilling a low valley and raising elevations on a small local hilltop. It has been restored to a gently domed profile.

Site monitoring will continue once the site has closed in accordance with the existing environmental permit. The site infrastructure will be maintained as follows:

- Site security will continue to be provided by the site office and existing fencing and gates that serve the other waste related activities at the Park ground facility;
- Combined landfill gas and leachate monitoring wells will be inspected during monitoring visits and any repairs needed will be carried out within the following week to maintain their integrity;
- Leachate will continue to be managed to ensure compliance with the permitted levels until such a time as further management is no longer required.

More detail relating to the closure and aftercare procedures for the site are provided in *Annex B6 – Closure and Aftercare Procedures and Annex C1 – Working Plan.*

Site Stability

An updated Stability Risk Assessment has been produced in support of this permit variation. This document considers the stability of the proposed variation within the area of proposed extension as well as its impact to the existing landfilling areas.

Please refer to *Annex B4 – Stability Risk Assessment* for a copy of this report.

3.3 Description of the Process

The proposed variation does not change the purpose and function of the Installation.

3.3.1 Raw Materials

Waste Feedstocks

Waste currently received at the landfill comprises mainly of mixed skip waste from industrial and commercial source. The landfill is currently permitted under Permit EPR/SP3336SN to accept 17,000

tonnes per annum of non-hazardous waste and 6,000 tonnes per annum of inert waste. The purpose of this application is to increase the amount of waste accepted on site to 60,000 tonnes of non-hazardous waste and 20,000 tonnes of inert waste.

All wastes accepted on site are subjected to stringent waste acceptance criteria in accordance with the site environmental management system which is provided within *Annex C1 – Working Plan.*

A detailed list of European Waste Catalogue (EWC) codes of wastes that are accepted by the Installation is provided in Table 3.2 overleaf.

Table 3.2: Permitted Feedstock EWC Codes and Types

Waste Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING AND PHYSICAL AND CHEMICAL TREATMENT OF MATERIALS
01 04	waste 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 10	dusty and powdery wastes other than those mentioned in 01 04 07
01 04 11	Waste from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	Tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
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 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
03	WASTE FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, PULP, PAPER AND CARDBOARD
03 01	waste 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
10	WASTES FROM THERMAL PROCESSES
10 01	wastes from power stations and other combustion plants (except 19)

10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 11	**waste from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 05	particulates and dust
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**
10 12 03	particulates and dust
10 12 05	sludges and filer cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 13	**waste from manufacture of cement, lime and plaster and articles and products made from them**
10 13 01	waste preparation mixture before thermal processing
10 13 06	particulates and dust (except 10 13 12 and 10 13 13)
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 14	waste concrete and concrete sludge
12	WASTES FROM SHAPING AND PHYSICAL AND MECANICAL SURFACE TREATMENT OF MENTALS AND PLASTICS
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 05	plastics shavings and turning
12 01 13	welding wastes
12 01 15	Machining sludge's other than those mentioned in 12 01 14
12 01 21	Spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15	WASTE PACHAGING; ABSORBANTS, WIPING CLOTHES, FILTER MATERIALS AND PROTECTIVE CLOTING 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
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	plastics
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soils 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 06	**insulation materials and asbestos-containing construction materials**
17 06 04	Insulation materials other than those mentioned in 17 06 01 and 17 06 03
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 FROM HUMAN CONSUMPTION AND WASTE FOR INDUSTRIAL USE**
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar waste
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, palletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand stone)
19 12 12	other wastes (including mixtures of minerals) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	**wastes from soil and groundwater remediation**
19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludge from groundwater remediation other than those mentioned in 19 13 05
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMULAR COMMERICAL, INDUSTRIAL AND INSTITUTIONAL WASTES). INLCUDING 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 38	wood other than that mentioned in 20 01 37
20 01 39	plastics
20 01 41	wastes from chimney sweeping
20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 02	soil and stones
20 02 03	other non-biodegradable wastes
20 03	**other municipal wastes**
20 03 01	mixed municipal wastes
20 03 02	waste from markets
20 03 03	street cleaning residues
20 03 07	bulky waste

Notwithstanding the EWC's codes stipulated in Table 3.2 above, waste shall only be accepted for disposal if:

- The waste is non-hazardous waste;
- The waste is not whole used tyres (other than bicycle tyres and tyres with an outside diameter of more than 1400mm);
- There are no shredded used tyres;
- The waste is not chemical substances from research and development or teaching activities, for example laboratory residues which are unidentified and / or which are new and whose effects on man and / or the environment are unknown;
- All the relevant waste acceptance procedures have been completed.

Waste deliveries take place on a weekday, daytime basis only, with additional deliveries on Saturday mornings and in emergency scenarios.

3.3.2 Environmental Management and Operator Competence

The Crappers and Sons site is operated in accordance to the company's Working Plan. This has been developed to ensure compliance with the EPR Permitting Requirements.

Please refer to *Annex C1 – Working Plan* for more information.

3.3.3 Operator Competence

There are no changes to the key personnel at site.

All personnel working at the facility have been trained in the necessary sections of the Working Plan and work under the instruction and management of the Site Manager, who acts as both the competent person at the facility and the main process supervisor.

The Site Manager at the site is deemed competent through qualification and holds the necessary Level 4 WAMITAB qualifications as required by the WAMITAB competency scheme.

All staff working for, and on the behalf of Crappers and Sons are suitably trained and competent. (e.g. professional maintenance engineers, electricians, equipment operators etc).

3.3.4 Accidents and Emergencies

Crapper and Sons have developed its own Accident Management Plan based around the specific risks associated with the site operations.

The Accident Management Plan has been included in *Annex C2 – Accident Management Plan*.

4 EMISSIONS & THEIR ABATEMENT

4.1 Emissions to air

Beyond potential landfill gas emissions, there are no process emissions to air arising for the Installation.

An updated Landfill Gas Risk Assessment has been produced as part of this permit variation. Although the site is well protected with respect to lateral migration it is considered prudent to assume that there is some, if limited, potential for lateral gas release. As a result, the risk assessment has been completed via consideration of the source-pathway-receptor linkage according to DEFRA and EA guidance.

Please refer to *Annex B5 – Landfill Gas Risk Assessment* for more information.

4.2 Emissions to Controlled Water

The drainage system across Park Grounds Farm, which incorporates the landfill comprises four ephemeral streams that carry water only during and after storms. These are diverted around the operating cells and into the local drainage ditches. Therefore, surface water cannot become contaminated by contact with the leachate resulting in there being no process emissions to controlled water.

The floors of all the non-hazardous cells are graded to provide a fall to the leachate collection sump. Leachate is further directed to the sumps via a herringbone drainage system comprising high density polyethylene (HDPE) pipe with a coarse gravel surround. Once the leachate has reached the action levels in the cells, it is removed by pumping from the leachate chimney and treated by recirculation onto the surface of the waste.

4.3 Emissions to Sewer

There are no emissions to sewer arising from the process.

4.4 Odour

Odour management and mitigation is a key issue for the Installation. The site has been designed with a hierarchy of odour control and monitoring regimes to ensure that the potential for odour impacts is minimised.

Please refer to the sites Odour Management Plan provided within *Annex C3 – Odour Management Plan* and the sites Working Plan document provided within *Annex C1 – Working Plan* for more information on the sites odour management and mitigation.

4.5 Fugitive Emissions

It is recognised that the landfilling activities carried out on site have the potential for the fugitive emissions of dust, however there are no changes to the site activities that introduce any additional fugitive emission sources as a result of this permit variation.

Please refer to the sites Dust Management Plan provided within *Annex C4 – Dust Management Plan* for more information on the sites dust mitigation measures.

5 ENVIRONMENTAL MONITORING

5.1 Emissions to Air

With the exception of potential landfill gas emissions, there are no process emissions to air.

Please refer to Section 7 of the updated Landfill Gas Risk Assessment provided within *Annex B5 – Landfill Gas Risk Assessment* which details the sites Landfill Gas Monitoring and Sampling Plan.

All landfill gas monitoring will be carried out as per currently permitted and in accordance with *Environment Agency Document 'LFTGN03: Guidance on Management of Landfill Gas'.*

5.2 Emissions to Controlled Water

There will be no changes to the surface water monitoring requirements resulting from this permit variation. Monitoring will be carried out as per currently permitted.

5.3 Emissions to Sewer

There are no process water emissions to sewer.

5.4 Leachate Management and Monitoring

There will be no changes to the leachate monitoring requirements resulting from this permit variation apart from the additional monitoring points due to the increase in number of cells.

Leachate monitoring will be carried out as per detailed in the current permit (shown in *Annex D – Previous Permits*). All cells will be monitored in accordance with the Environment Agency document *LFTGN 02 'Guidance on Monitoring of Landfill Leachate, Groundwater and Surface Water'.*

A Hydrogeological Risk Assessment has been produced in support of this permit variation and has been provided in *Annex B3 – Hydrogeological Risk Assessment (HRA)*. The report concludes that due to the low sensitivity of the site setting from a groundwater perspective, under normal circumstances landfilling at Park Grounds Landfill poses no risk to groundwater.

6 IMPACT TO THE ENVIRONMENT

6.1 Impacts to Air

There are no impacts to air relating to this proposed Variation.

6.2 Impacts to Land

There are no impacts to land relating to this proposed Variation.

6.3 Impacts to Controlled Waters

There are no impacts to controlled water relating to this proposed Variation.

6.4 Impacts to Sewer

There are no impacts to Sewer relating to this proposed Variation.

Annex A: Figures

Annex B1: Flood Risk Assessment

Annex B2: Environmental Setting and Site Design Report (ESSD)

Annex B3: Hydrogeological Risk Assessment (HRA)

Annex B4: Stability Risk Assessment (SRA)

Annex B5: Landfill Gas Risk Assessment (LFGRA)

Annex B6: Closure and Aftercare Procedures

Annex B7: Site Condition Report

Annex C1: Working Plan

Annex C2: Accident Management Plan

Annex C3: Odour Management Plan

Annex C4: Dust Management Plan

Annex D – Previous Permits

Annex E – Competence