

Permitting Decisions- Variation

We have decided to grant the variation for Milegate Landfill Eastern Extension operated by Sandsfield Gravel Company Limited.

The variation is for the Eastern Extension of the Landfill to allow continued landfilling until 2038.

The relocation of the existing flare from the southeast corner to the northwest corner of the existing site (January 2019) and the upgrade of the flare (September 2021) (retrospective planning application).

Install a new gas compound in the northwest corner of the site in which there will be the phased installation of two new landfill gas to energy engines (micro-engines). The micro-engines are below the threshold for Medium Combustion Plant at the estimated MW thermal input for each engine would be between 0.602 and 0.728 MW, therefore the combined MW thermal input for the two engines would be between 1.204 and 1.456 MW. The upgraded landfill gas flare will also be moved into this compound.

Additional leachate extraction and monitoring wells for the Eastern extension area

Additional groundwater monitoring points for the Eastern extension area

Additional internal and external landfill gas monitoring wells for the Eastern extension area

Additional surface water monitoring for the Eastern extension area.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

Purpose of this document

This decision document provides a record of the decision-making process. It

- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account
- shows how we have considered the [consultation responses](#)

Unless the decision document specifies otherwise we have accepted the applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit and the variation notice.

Decision considerations

The operator is proposing an Eastern Extension to the existing landfill into a neighbouring field which is currently in agricultural use. Sands and gravels will continue to be extracted by working eastwards through the quarry sidewall. The landfill development will progress to cells 9 to 14 in a clockwise direction until 2038. Landfill gas is currently collected and flared from existing cells. The development proposal upgrades this system to include a new landfill gas utilisation compound (two gas to energy engines and a flare) in the north-west corner of the existing site (the previous flare was located in the south west corner of the site).

The site will continue to accept inert and non-hazardous wastes from Sandsfield's own waste transfer station. The engineering design principles will be similar to the existing established cells and the waste types remain unchanged.

Key issues

Changes to monitoring requirements and emission limits due to the Eastern Extension

Permit Table S3.4 Groundwater – emission limits and monitoring requirements

There are changes to the groundwater monitoring and emission limits as detailed in the Hydrogeological Risk Assessment (HRA) submitted with the application.

We do not agree with the Operator's proposed compliance limit for lead for GWS01. Regarding Q3 of the S5 response 2 (see section below on Requests for information and Schedule 5 Notices) – we accept the response with the exception of the lead compliance limit for GWS01. The Operator proposed

0.3ug/l compliance limit for lead, however the maximum concentration reported is 0.29 µg/l – so we have included this as the compliance limit instead.

Please note: statistical analysis of the values of concern have shown that visible outlier analysis has detected the current outliers where there are limited data sets. This should be highlighted for review at the next HRA review for the site.

Surface water discharge activity

The Groundwater Management Plan (GWMP) confirms that groundwater ingress is currently managed by 2 back drains. There is a back drain sump in the northwest corner of the site which collects the water and transports it by pipes and ditches to the settlement pond where it is then discharged to the Milldam Beck (there is a compliance point for it at the settlement pond at SW3). A groundwater drainage system will be constructed around the Eastern Extension to the same sump in the northwest corner and then pumped and transported via the surface water network to be discharged to Milldam beck. Therefore a risk assessment of the discharge based on 12 months of monitoring is required - to confirm whether there are any substances in the combined surface water and groundwater discharge which need to be assessed and have emission limit values (ELVs). To address this improvement condition reference IC7 has been added (table S1.3). There current discharge to surface water is combined with groundwater but this is not detailed in the permit and there is no information to confirm that the combined discharge has previously been assessed. See improvement condition section of this decision document for further information.

Also regarding table S3.3 – the operator proposed to include an additional surface water compliance point SW1 as due to the Eastern Extension this is now downstream of SWX. However as SW2 will also monitor the Milldam beck – we did not consider that additional compliance point SW1 was necessary and so we have not included this in table S3.3. Instead SW1 will be monitored in accordance with table S3.11.

Improvement conditions regarding monitoring and emission limits

As a result of the additional monitoring and compliance points included in the permit for the Eastern Extension (EE) area, namely: leachate level (table S3.1), groundwater (table S3.2); external landfill gas (table S3.4) – these tables have included interim emission limits until the limits can be verified following a period of 12 months of monitoring. Therefore, improvement conditions have been added to require monitoring and proposal of final emission limits for leachate level (improvement condition, table S1.3 ref IC4), groundwater emission limits for EE and monitoring points GWC02 and GWS04 (improvement condition, table S1.3

ref IC5) and external landfill gas monitoring (improvement condition, table S1.3 ref IC6).

Pump cessation testing

The operator was asked as part of Schedule 5 Notice 2 to:

1. Confirm what recovery times are applicable for each of the LCP series of wells prior to leachate level monitoring being completed for the current cells.
2. Provide details of annual recovery tests performed on each monitoring well to demonstrate the well efficiency is still suitable for the recovery time currently applied ahead of monitoring. If no recovery time is currently given ahead of leachate level monitoring for current cells, provide evidence of any previous agreements with the Environment Agency which approved this approach.

These questions were asked to be sure that the leachate level data is realistic. Monitoring leachate levels from recently pumped wells is not reflective of the true leachate head acting on the site, so the impact to groundwater may not be fully understood. Annex 3, provided as part of the first Schedule 5 Notice has updated the monitoring approach for the Eastern Extension which will now correctly follow practices defined in LFTGN02. However, it has highlighted that current cells are not being monitored correctly for leachate level. It should be noted that the original 2004 Hydrogeological Risk Assessment (HRA) outlined that all leachate monitoring points would have leachate levels monitored and elevations reported.

The operator confirmed that currently leachate monitoring is carried out after the pump is turned off and once the leachate level appears to have settle rather than after a specific amount of time.

We do not accept this response as good practice. However, if this data is unavailable then assessment of this cannot be done at this stage. The permit requires that leachate level to be monitored in the remote monitoring points for all cells as detailed in the Leachate Management Plan. Quality data can be taken from the LCP collection wells as specified in the permit. As no agreement has been provided - an improvement condition, table S1.3, reference IC3 has been included in the permit to require recovery tests on each abstraction well to be completed within 6 months of the variation being issued.

Improvement condition, table S1.3, reference IC8 has been added to require an up dated plan / drawing of the new Gas Utilisation Plant which includes the gas engines and the relocated flare.

Table S1.4, Pre-operation condition reference PO1

A pre-operational condition has been added for the installation of the proposed 3 new pairs of groundwater monitoring boreholes in the principal Chalk aquifer and

the Lower Sands Secondary A aquifer as detailed on drawing HRA1, Monitoring and abstraction point plan, dated 28 June 2022.

These groundwater monitoring boreholes are required prior to waste deposit in the Eastern Extension area – cells 9 to 14 to ensure that the groundwater can be appropriately monitored for the Eastern Extension area.

Landfill gas engines

Despite information requests regarding the two new micro-engines, we confirm that these are below the threshold for Medium Combustion Plant at 1MW thermal input - the estimated MW thermal input for each engine is between 0.602 and 0.728 MW. The requirements for monitoring these engines have been added to table S3.1 of the permit in accordance with our LFTGN03 guidance for monitoring landfill gas engines.

Restoration plan

The Operator also requested in Supporting Statement, table 631.2, 'Proposed changes to existing activities in permit EPR/BX1942IX/V003': regarding the waste input limits in table S1.4 - that 130,000 tonnes / year is included for restoration wastes as detailed in the Restoration Plan submitted in December 2020 in accordance with former improvement condition IC1. However, the Restoration Plan should have been submitted with a variation application and so has not been assessed. The Operator will need to submit a separate variation application for the assessment and incorporation of the Restoration Plan.

Schedule 5 Notices and Requests for Information (RFIs)

There were a number of RFIs and Schedule 5 notice requests for information throughout the duly making and determination of this application to ensure that

we had enough information to complete the determination. These are detailed as follows:

NDM RFI 25/04/2024

1. The requirement for a Habitats Assessment.
2. The requirement for an updated Odour Management Plan to cover the Eastern extension area.
3. Confirmation of the MW thermal input for each of the two new landfill gas engines (micro-engines).
4. Confirmation of additional surface water emission / monitoring points
5. An updated environmental management system summary.
6. An updated Continuing Competence certificate.
7. An updated Emissions Risk Assessment (Appendix NHMP1 of the Nuisance and Health Management Plan.
8. Confirmation of the Financial Provision mechanism.

Response received 06/06/24

NDM RFI 02/07/2024

Request to complete part 2.5 application form as it was considered that the 2 micro engines were above the threshold for medium combustion plant at 1MW.

Response received 09/07/2024 to part 2.5 application form

NDM request regarding Air Quality and Habitats dated 16/07/2024:

1. Thermal Input

There is a discrepancy between the thermal input values quoted in the plant list spreadsheet and the Table GRA6: Modelled Flare and Engine Characteristics (pg 13, Landfill Gas Risk Assessment.) Please can you clarify the correct values.

2. Habitats

An additional SPA (Greater Wash) was found to be within the 10km screening distance, and therefore any potential impacts need to be assessed for this site. Please update the relevant documents, paying particular attention to the Landfill Gas Management and Monitoring Plan,

ref 20148978.641/A.0. Guidance can be found here: Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk)

Response received 23/07/2024

1. Thermal input

Based upon the micro-generator capacity of up to 114 m³/h from the engine specification (stated as the maximum of the range in table GRA6), and heating value of 19-23 MJ/m³, the estimated MW thermal input for each engine would be between 0.602 and 0.728 MW, therefore the combined MW thermal input for the two engines would be between 1.204 and 1.456 MW. These two values are stated within the MCP spreadsheet as the range of thermal input.

Response received 05/08/2024

2. An updated Gas Risk Assessment submitted to include the omitted habitat (Greater Wash SPA).

NDM clarification 15/08/2024 confirming that the Habitats assessment also requires all of the local sites to be assessed.

NDM request 05/09/2024 requiring an updated Air Quality Risk Assessment for habitats.

Response received 31/10/2024

Gas Risk assessment and Habitats final report received.

Application duly made 31/10/2024

Application publicised and sent for consultation

Schedule 5 Notice 1 request for information dated 23/07/2025 in relation to:

Waste area and volumes

Environmental Setting and Installation Design (ESID)

Updated ESID report required which includes groundwater information in relation to the Eastern Extension area and revised water balance calculations.

Hydrogeological Risk Assessment

A revised copy of the hydrogeological risk assessment report required to include various changes.

Leachate Management Plan

A revised Leachate Management Plan (LMP) required to include various changes associated with the Eastern extension area plus confirmation that the two leachate holding tanks have the capacity to manage leachate from the eastern extension in addition to the current landfill.

Gas Risk Assessment

1. Provide electronic copies of GasSim Models.
2. Provide a statement to explain why only 'Other Paper' was disproportionately increased in the GasSim parameterisation, while other gas producing waste streams accepted at site were not adjusted.
3. Provide a statement to confirm that the anticipated peak gas production rate and date anticipated considers waste from all 14 cells.
4. Explain why there is a sharp increase in gas flaring from 2020 onwards on Figure GRA2 in the LFGRA.
5. Explain why Figure 3 in Appendix GRA3 shows flaring ceasing in 2038.
6. Explain why two micro generators are considered sufficient for managing landfill gas at the site
7. Confirm how regularly the flare is intended to be used.
8. Confirm how much gas is expected to be exported to the National Grid and explain if this is limited by the infrastructure capacity to accept a greater amount.

Stability Risk Assessment

9. Provide a written statement, and where appropriate annotated drawing(s), to demonstrate how the passive drainage constructed against the geological side-slope sub-grade will prevent the build-up porewater pressures within the engineered fill and geological liner.

Schedule 5 Notice request for information dated 06/11/2025 in relation to the Financial Provision Expenditure Plan.

Response to Schedule 5 Notice 1 received 21/11/2025

Response to Schedule 5 Notice in relation to the Financial Provision Expenditure Plan received 04/12/2025

Schedule 5 Notice 2 issued on 11/12/2025

Regarding recovery times for each of the LCP series of leachate wells and details of annual recovery tests performed on each monitoring well to demonstrate the well efficiency is still suitable for the recovery time currently applied ahead of monitoring.

Review and where necessary update the GoldSim and LandSim models and results within the HRA to provide the answer to various queries.

Queries in relation to gas management.

Response to Schedule 5 Notice 2 received 30/01/2025

Request for information (RFI) dated 18/02/2025 in relation to groundwater monitoring and LandSim files in excel format

RFI response received 18/02/2026

Internal consultation on SCRET dated 25/03/2026

Internal consultation on SCRET received on 09/04/2026

Confidential information

A claim for commercial or industrial confidentiality has been made.

We have accepted the claim for confidentiality.

We have excluded the information relating to Financial Provision.

We consider that the inclusion of the relevant information on the public register would prejudice the applicant's interests to an unreasonable degree.

The decision was taken in accordance with our guidance on confidentiality.

Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

- Local Authority – Environmental Protection Department
- Local Authority – Planning
- Director of PH/UKHSA
- Health and Safety Executive
- Food Standards Agency
- Sewerage Authorities
- National Grid
- Inshore Fisheries and Conservation

The comments and our responses are summarised in the [consultation responses](#) section.

The application was publicised on the GOV.UK website.

The regulated facility

We considered the extent and nature of the facilities at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation'.

The extent of the facilities are defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

The site

The operator has provided a plan/s which we consider to be satisfactory.

These show the extent of the site of the facility.

The plan is included in the permit.

Site condition report

The Site condition report is required for the Gas Compound which has been relocated to from the SE corner to the NW corner of the site.

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports.

Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations.

The following sites are within the screening distance of Milegate Landfill:

Special Protection Areas

The Greater Wash SPA – 7.5km to the East of Milegate Extension

The Greater Wash SPA is located off the east coast of England. It is situated in the middle of the southern North Sea. The Greater Wash SPA was designated in 2018 to protect important areas of sea used by waterbirds during the non-breeding period, and for foraging in the breeding season.

Hornsea Mere SPA – 4.38km to the East of Milegate Extension

The largest natural lake in Yorkshire, Hornsea Mere is the last significant remnant of the once numerous meres and marshes of Holderness in the East Riding of Yorkshire.

See the completed HRA1 form.

Local Wildlife Sites

Catwick – Seaton Road 1237m from Milegate Extension to S

Good quality hedgerow with 6 woody species per 30m sample.

Nunkeeling Lane 1538m Milegate Extension to N

Good quality 'vergescape' consisting of verge and ditch habitats and a hedgerow with 6 species per 30m sample

Protected Habitats

Deciduous Woodland 13m and 31m to south of the site.

Smothering - Fugitive emissions of dust was considered to be the only potential source of pollution that may give rise to smothering. However this deciduous woodland is adjacent to the existing site (cells 3 and 5) rather than the Eastern

Extension area and the prevalent wind direction is considered to be from SW to NE – so dust is less likely to be towards this protected habitat. Furthermore, the site has dust management measures in place in the Nuisance and Health Management Plan - to prevent and minimise emissions of dust. Therefore, dust is unlikely to have a significant impact on this protected habitats area.

Deciduous Woodland - 799m to E. There is not likely to be a significant impact from dust emissions due to the distance from the site.

Nelson Plantation - Deciduous Woodland – 967M to N, Deciduous Woodland – 1.3 km to NE and Deciduous Woodland – 1.7km to W NW. There is not likely to be a significant impact from dust emissions due to the distance from the site and the protected habitats not being in the prevalent wind direction.

Furthermore the site has dust management measures in place in the Nuisance and Health Management Plan - to prevent and minimise emissions of dust.

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

We have not consulted Natural England.

The decision was taken in accordance with our guidance.

Environmental impact assessment

In determining the application we have considered the Environmental Statement.

We have also considered the planning permission and the committee report approving it.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility as follows:

Environmental risk assessment

The operator's risk assessments which include Hydrogeological Risk Assessment, Stability Risk Assessment and Landfill Gas Risk Assessment including GasSim are satisfactory.

Air Quality Risk Assessment

The air quality risk assessment was submitted to assess the emissions to air from the 2 new gas engines (micro-engines) and the re-located flare.

The air quality risk assessment was screened for NO_x, SO₂, benzene and 1,3 butadiene and came out as medium risk at the most, but the process contributions are predicted to be very low. Due to the proximity of the nearest receptors (194m to the west), it's very unlikely that the buildings will impact upon dispersion. On the risk assessment screened out as low risk.

The human health assessment was also screened and is considered to be low risk.

The operator's risk assessment is satisfactory.

General operating techniques

We have reviewed the techniques used by the operator and compared these with the relevant guidance notes and we consider them to represent appropriate techniques for the facility.

The operating techniques that the applicant must use are specified in table S1.2 in the environmental permit.

National Air Pollution Control Programme

We have considered the National Air Pollution Control Programme as required by the National Emissions Ceilings Regulations 2018. By setting emission limit values in line with technical guidance we are minimising emissions to air. This will aid the delivery of national air quality targets. We do not consider that we need to include any additional conditions in this permit.

Odour management

We have reviewed the updated odour management plan in accordance with our guidance on odour management.

We consider that the odour management plan is satisfactory and we approve this plan.

We have approved the odour management plan as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from

operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit'.

Noise and vibration management

Due to the location of the site with respect to off-site receptors (nearest residential / commercial receptor is 160m to south of site) and the fact that this is a variation to the existing permit – we consider that there is not a significant risk of noise and vibration from the proposed activities associated with the Eastern Extension.

Noise management measures are included in the Nuisance and Health Management Plan and the Nuisance and Health Risk Assessment - and these are satisfactory.

The Operator submitted a Noise Assessment report (ref: 20148978.643/A.0) – this document has not been assessed as part of the determination; however we agree with the conclusions of the report that there would be no significant impact due to noise.

Dust management

A Dust Management Plan was submitted with the application, however this refers to dust emissions from the quarry excavation and the movement of topsoil, subsoil and bulk / engineered fill at the site – in relation to the planning permission. Therefore this has not been incorporated into the permit through table S1.2.

Whereas potential dust impacts from the landfilling activities are managed in accordance with the Nuisance and Health Management Plan (NHMP) (as detailed in table S1.2).

We are satisfied with the mitigation measures detailed in the NHMP.

We consider that the NHMP is satisfactory and we approve this plan.

We have approved the NHMP as we consider it to be appropriate measures based on information available to us at the current time. The applicant should not take our approval of this plan to mean that the measures in the plan are considered to cover every circumstance throughout the life of the permit.

The applicant should keep the plans under constant review and revise them annually or if necessary sooner if there have been complaints arising from operations on site or if circumstances change. This is in accordance with our guidance 'Control and monitor emissions for your environmental permit'.

Groundwater Management Plan (GWMP)

GWMP, section 2 states, 'Observations made at the Site during the extraction of sand and gravel show that groundwater present in the Lower Sand flows into the excavation. As such, groundwater in the Lower Sand has been managed during the construction of the Site using a back-drain behind each cell'.

'Groundwater drains have been constructed for all cells that received waste. One drain prevents ingress of groundwater from south and west running along the eastern edge of Cell 1, southern edges of Cells 1, 3, 5, and 7, and western edges of Cells 7 and 8. A back drain sump located in the north-west corner of the landfill collects the water and from where it is transported via a network of pipes and ditches to settlement ponds from which it gets discharged to the Milldam Beck in the south-west corner of the Site. Leading to the same sump is a drain collecting water from the northern side of the Site and which currently runs along the northern edges of Cells 8, 6 and 4B and is planned to be extended on to Cells 2A and 2B'.

'A groundwater drainage system will be constructed around the Eastern Extension with the same general design as at the existing parts of Milegate Extension Landfill. Groundwater will flow under gravity from the back drain into a back drain sump from which it will be pumped and transported via a surface water network to be discharged to the Milldam Beck. A detailed design will be provided upon approval of this permit variation application'.

'Groundwater management is required whilst each cell is under development. As the site moves towards completion, it may be possible to 'turn off' the drain behind some completed cells to minimise the groundwater discharging to the Milldam Beck. In development of Cell 14 (the final cell), the back drain may be accessed by a temporary manhole with submersible pump until such a time that waste levels in the cell are sufficiently high that the pump can be withdrawn'.

'Once landfilling is completed in all cells, no drainage of groundwater will be required, and water levels will re-bound to their natural level to provide hydraulic containment of the site'.

So, the groundwater management for the Eastern Extension area is an extension of the existing system.

There are existing surface water compliance points for downstream of the settlement pond at SW3 and downstream of the Milldam Beck at SW2 - both in the south west corner of the site. As part of this variation surface water monitoring point SW1 will also become a downstream monitoring point – see Surface Water Management Plan section below for more information.

The response to the Schedule 5 notice also states that "groundwater which has collected in any temporary sumps with the quarry floor will continue to be pumped up the quarry sidewall and into the same existing drainage system. The process for obtaining a variation to the sites existing water transfer licence [groundwater abstraction permit] to extend into the Eastern Extension is in

progress, with pre-application advice having been sought from the EA water resources team, and a water features survey currently in progress prior to submission of a full transfer licence variation application”.

As it has been confirmed that as the emission source consists of surface water and groundwater, a risk assessment is required of the combined emission, therefore improvement condition (table S1.3, ref:1C3) has been included in the permit to address this.

Surface Water Management Plan (SWMP)

SWMP, section 2 states that the final landform has been designed to shed surface water to the perimeter of the site towards Milldam Beck and Moor Main Drain. Perimeter surface water drainage ditches will be installed progressively and will be unlined where they are constructed in virgin ground – where surface water will infiltrate directly into the underlying sand and gravel and flow towards the Milldam Beck and the Moor Main Drain.

Monitoring locations

The surface water monitoring locations are shown on HRA1 – monitoring and Extraction Plan (MEPP), dated 28/06/2022. For the existing landfill, surface water has been monitored at upstream monitoring point SW1 and emission monitoring points SW2 and SW3 (surface water settlement point).

When the site is extended to the east, monitoring point SW1 will no longer be located upstream of the site and so will be monitored as a downstream monitoring point in accordance with table S3.11. Two new upstream monitoring points will be established on Milldam Beck (SW5) and on Moor Main Drain (SW4).

See the key issues section for further information.

Emission limits

The operator did propose that SW1 be monitored as a downstream compliance point along with SW2, which are both in Milldam Beck - and proposed the same emission limits as SW2 (as detailed in table S3.3 of the permit). However, we consider that emission limits for SW2 are sufficient to detect any compliance issues in Milldam Beck. Therefore we have not added SW1 as a surface water compliance point in table S3.3.

Further the footnote to table S3.1 has been amended to refer to the new proposed upstream surface water monitoring points SW4 and SW5 as follows:

“Emission limits for BOD, ammoniacal nitrogen and suspended solids are applicable only where concentrations at SW1 and SW2 exceed those concentrations within SW4 and/or SW5 – as identified on the MEPP”.

Pre-operational conditions

Based on the information in the application, we consider that we need to include pre-operational conditions.

Pre-operational condition PO1

Prior to waste deposit in the Eastern Extension area – cells 9 to 14.

The operator shall install the proposed 3 new pairs of groundwater monitoring boreholes in the Principal Chalk aquifer and the Lower Sands Secondary A aquifer as detailed on drawing HRA1, Monitoring and abstraction point plan, dated 28 June 2022.

The operator must undertake this in accordance with conditions 2.6.5 to 2.6.7 of the permit.

Original pre-operational conditions PO1 and PO2 have been removed as they have been complied with.

Improvement programme

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme to ensure that

Improvement condition IC3

The operator shall submit a written report to the Environment Agency for assessment and written approval. The report must contain:

- The results of pump cessation tests for all wells outlined in Table S3.9 where leachate is pumped and leachate level monitoring undertaken. The tests should be completed in line with Section 9.5.4 of Environment Agency Guidance LFTGN02 'Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003)
- Justification for the recovery time at each location proposed for adoption before the leachate level is monitored

The operator must implement any proposals identified within the report as confirmed by the Environment Agency's written approval.

Date: 30 October 2026

Reason: The operator has not been monitoring leachate levels appropriately for the current phase and needs to show that the monitoring provided to date, which has only allowed leachate to settle, is compliant.

Improvement Condition IC4

The operator shall submit a written report to the Environment Agency for assessment and written approval to propose leachate level compliance limits for the leachate compliance points for Cell 2B and the Eastern Extension (Cell 9, Cell 10, Cell 11, Cell 12, Cell 13, Cell 14). This must contain 12 months of consecutive monthly monitoring of groundwater and leachate levels.

Following Environment Agency written approval, the compliance limits will apply within Table S3.1.

Date: 15 months from the date of written approval of the installation of each monitoring point in accordance with condition 2.7.

Reason: To set leachate level compliance limits for the newly proposed wells in the Eastern Extension area.

Improvement Condition IC5

The operator shall submit a written report to the Environment Agency for assessment and written approval to propose groundwater compliance limits for the groundwater monitoring points in the Eastern Extension area (Chalk and Sand wells) monitoring points GWC02 and GWS04. This must contain 12 months of consecutive monthly monitoring as detailed in Table S3.8.

Following Environment Agency written approval, the compliance limits will apply within Table S3.4.

Date: 15 months from the date of written approval of the installation of each monitoring point in accordance with condition 2.7.

Reason: To set groundwater compliance limits for the newly proposed wells in the Eastern Extension area

Improvement Condition IC6

The operator shall submit a written report to the Environment Agency for assessment and written approval to propose perimeter landfill gas compliance limits for the Eastern Extension area following 12 months of consecutive monthly monitoring as detailed in Table S3.5.

Following Environment Agency written approval, the compliance limits will apply within Table S3.5.

Date: 15 months from the date of written approval of the installation of each monitoring point in accordance with condition 2.7.

Reason: To set landfill gas compliance limits for the newly proposed wells in the Eastern Extension area

Improvement Condition IC7

The operator shall submit a report to the Environment Agency for assessment and written approval that covers point source emissions to water as listed in Schedule 3, Table S3.3.

The report must include:

- An assessment of the discharge to surface water which consists of a combined surface water and ground water discharge (with the groundwater from the groundwater back drain)
- A review and interpretation of the emission monitoring undertaken in accordance with Schedule 3 as well as relevant operational techniques and associated documents listed in Schedule 1, Table S1.2.
- A comparison of the monitoring results with the limits listed in Schedule 3, Table S3.3 for each parameter.
- The results and conclusions from an assessment of the environmental impact of the emissions to water using all relevant parameters. The assessment must be carried out using the Environment Agency's H1 Environmental Risk Assessment tool (or equivalent as agreed with the Environment Agency) and/or modelling as required following our guidance (see links below).

[Risk assessments for your environmental permit - GOV.UK](#)

[Surface water pollution risk assessment for your environmental permit - GOV.UK](#)

[H1 annex D2: assessment of sanitary and other pollutants in surface water discharges - GOV.UK](#)

Where the report concludes that the impact of an emissions may be significant or exceeds an environmental standard (e.g. an environmental quality standard EQS) the operator shall:

- Review where there is a need for emission limits to be lower than the limits listed in Schedule 3, Table S3.3 to prevent excessive deterioration and/or exceedance of environmental standards.
- Review whether there is a need for additional parameter monitoring and emissions limits to those listed in Schedule 3, Table S3.3 to prevent excessive deterioration and/or exceedance of environmental standards.
- Propose revised emissions limits that will prevent excessive deterioration and/or exceedance of the environmental standard(s)

- Include proposals for measures to mitigate the emissions to meet the relevant emission limit (for example, the provision of additional treatment or abatement) and timescales for the implementation of these measures
- Review and update where appropriate the surface water management plan listed in Schedule 1 Table S1.2.

The proposals shall be implemented within six months of approval of the report or as agreed in writing by the Environment Agency.

Date: 30 October 2027

Reason: to ensure that the combined discharge of surface water and groundwater have been assessed appropriately. For further information – see the key issues section.

Improvement Condition IC8

The Operator shall submit a plan of the Gas Utilisation Compound which shows the location of the gas flare, engines and their emission points and other infrastructure.

Date: 30 October 2026

Reason: to ensure that there is a plan / drawing which clearly shows the location of the infrastructure in the Gas Utilisation Compound and the emission points associated with the engines and flare.

Emission limits

Table S3.1 - Leachate level limits and monitoring requirements

Limits have been added for proposed cells 9 to 14 in the Eastern Extension area and amended for some of the existing cells.

Emission Limit Values (ELVs) or equivalent parameters or technical measures based on Best Available Techniques (BAT) have been added for the following substances:

Table S3.2 Point source emissions to air – emission limits and monitoring requirements

ELVs have been added for Oxides of Nitrogen, Carbon Monoxide (CO) and Total VOCs for the 2 new landfill gas engines which are proposed to be installed (micr-engines)

Table S3.4 Groundwater emission limits and monitoring requirements

ELVs have been added for proposed cells 9 to 14 in the Eastern Extension area and amended for the existing cells.

The Operator states in the Hydrogeological Risk Assessment (HRA) that cadmium and naphthalene have been re-classified as non-hazardous substances and so have been removed from the priority contaminants list and replaced with hazardous substances lead and fluoranthene. Therefore, the operator has proposed new compliance limits to reflect this.

Also following the observed mecoprop concentrations in leachate, and its addition as a priority contaminant – the Operator has proposed compliance limits for mecoprop across all downgradient groundwater monitoring

boreholes. Interim limits have been set for GWC06, GWS05 and GWS06 until the final limits are agreed in accordance with improvement condition reference IC4. GWC06 - interim limits set to same as GWC02. GWS05 and GWS06 – interim limits are set to the same as GWS04, with the exception of lead where the limit is as per the most recent HRA, table HRA25.

Also see ‘Further Decision Considerations’ section for more information on emission limit changes.

Table S3.5 Landfill gas in external monitoring boreholes

ELVs have been added for proposed new monitoring points BHG23-BHG42 in the Eastern Extension area.

Monitoring

We have decided that monitoring should be added / amended for the following parameters, using the methods detailed and to the frequencies specified:

Table S3.2 Point source emissions to air – emission limits and monitoring requirements

Monitoring has been added for Oxides of Nitrogen, Carbon Monoxide (CO) and Total VOCs for the 2 new landfill gas engines which are proposed to be installed (micro-engines)

Table S3.5 Landfill gas in external monitoring boreholes

Monitoring has been added for Methane, Carbon dioxide, Oxygen, Atmospheric pressure, Differential pressure for proposed new monitoring points BHG23-BHG42 in the Eastern Extension area.

Table S3.8 Other groundwater monitoring

Monitoring has been added for the parameters detailed in table S3.8 for the new groundwater monitoring points installed in the Eastern Extension area.

Table S3.9 Landfill gas - other monitoring requirements

Monitoring has been added for the parameters detailed in table S3.9 for the new gas monitoring points and infrastructure installed in the Eastern Extension area and as a result of this variation.

Table S3.10 Leachate – other monitoring requirements

Monitoring has been added for the parameters detailed in table S3.10 for the new leachate monitoring points installed in the Eastern Extension area and as a result of this variation as detailed on the MEPP.

Table S3.11 Surface water – other monitoring requirements

Monitoring has been added for:

Ammoniacal nitrogen
Chloride
Suspended Solids
Visual Oil and Grease
pH
electrical conductivity
BOD

For the additional monitoring point SW5.

These monitoring requirements have been included in order to ensure that the Eastern Extension area is appropriately monitored.

We made these decisions in accordance with LFTGN02, Monitoring of Landfill Leachate, Groundwater and Surface Water' (February 2003), [risk assessments](#)

for your environmental permit (www.gov.uk), Management of Landfill Gas (LFTGN03), Monitoring Trace Components in Landfill Gas (LFTGN04), Monitoring enclosed landfill gas flares (LFTGN05), Monitoring landfill gas surface emissions (LFTGN07), Monitoring landfill gas engine emissions (LFTGN08) and monitoring-stack-emissions-techniques-and-standards-for-periodic-monitoring.

Reporting

The reporting requirements linked to the monitoring table requirements have not changed, however the monitoring requirements within the monitoring tables have changes as detailed in the 'Monitoring' section above.

Management system

We are not aware of any reason to consider that the operator will not have the management system to enable it to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

Financial provision

We are satisfied that the operator has made the necessary financial provision.

Growth duty

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit variation.

Paragraph 1.3 of the guidance says:

"The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation."

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

Consultation Responses

The following summarises the responses to consultation with other organisations, our notice on GOV.UK for the public and the way in which we have considered these in the determination process.

Responses from organisations listed in the consultation section

Response received from Environmental Control Team – East Riding of Yorkshire Council.

Brief summary of issues raised: No objections to the application

Summary of actions taken: No actions required.