

Decision document variation

We have decided to grant the variation for SRC Martells Quarry operated by Sewells Reservoir Construction Limited.

The variation number is EPR/BP3334YQ/V002.

The variation is to extend the permit boundary to increase the area of waste deposition by approximately 14.7 hectares to allow an increase in the amount on inert waste landfilling, the annual waste input has also been increased to 175,000 tonnes per annum. Groundwater monitoring points have been updated to include a new monitoring location at the Pond C Outfall, as shown in plan in letter L/SRC/MRT/015.doc/20, dated December 2020. The addition of improvement conditions IC3, IC4 and IC5 to ensure groundwater quality baseline; groundwater compliance limits during dewatering; and to ensure groundwater compliance limits are reviewed and appropriate limits are set once dewatering has ceased, respectively. The addition of pre-operational condition PO1 to ensure compliance prior to cessation of dewatering are established. The addition of perimeter boreholes BH9, BH10, BH11, BH12 and BH13; and the addition of in waste boreholes G7 – G34 within the new Western Extension, as shown in drawing KD.MTQ.3.003 dated February 2020. The removal of the following waste codes from the following tables, none of these waste codes have been landfilled at the site. Table S2.1: 10 13 14, 17 03 02, 10 05 01, 10 06 01, 10 07 01, 10 11 03, 15 01 07, 19 03 05, 19 03 07, 19 13 02, and 19 13 04. Table S2.2: 10 11 03, 15 01 07, 17 02 02, 19 12 05 and 20 01 02. The addition of waste code 19 02 06 to table S2.1.

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 to show how the main relevant factors have been taken into account. We have assessed the aspects that are changing as part of this variation, we have not revisited any other sections of the permit.

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

- highlights [key issues](#) in the determination

- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account
- fshows 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.

Key issues of the decision

Stability Risk Assessment (SRA)

The SRA was submitted in support of the Western Extension for Martells Quarry, in addition we issued a Schedule 5 Notice dated 11/11/2020 in which we asked the operator to confirm the artificial engineered geological barrier (AEGB) on the side slopes of the Western Extension. The operator was also asked to model the short term and long term scenarios at each lift of the side slope lining system and for the full height of the side slope lining system, unconfined by waste, and with a high water table flowing from the pond adjacent to the western boundary into the side slope lining system.

The response to this Schedule 5 Notice received on 15/12/2020 provided an updated SRA reference 'Rev1.1 Final', dated December 2020. This stability risk assessment has been assessed and is acceptable.

Groundwater Monitoring and Compliance

The groundwater monitoring locations on the previous permit were limited to BH3, BH4 and GW97-01 these are located between the eastern area of the landfill and the western extension. As the public highway which runs between these two areas of the site is outside the permit boundary these existing monitoring points BH3, BH4 and GW97-01 will continue to be compliance points.

An additional groundwater compliance point 'Pond C outfall' location shown in map in letter L/SRC/MRT/015.doc/20, dated December 2020, has been added to the permit, this will monitor the quantity and quality of water abstracted from the sump. Improvement conditions IC3, IC4 and IC5 have also been added to the permit; IC3 has been included to establish the baseline from sump and boreholes data; and IC4 has been included to establish the compliance limits at the compliance point 'Pond C outfall'; and IC5 has been included to ensure groundwater compliance limits are reviewed and appropriate limits are set once dewatering has ceased. A Pre-operational measures for future development PO1 has been included to ensure compliance prior to cessation of dewatering are established.

Carbon Dioxide External Gas Monitoring Limits

The operator submitted a Gas Monitoring Action Plan, dated 13th February 2020. This Action Plan has been reviewed and the 8 action levels for CO₂ for BH1, BH3, BH4, BH5, GM97-01, GM97-03, GM97-06 and GW97-01 have been accepted; with this submission IC1 and IC2 have been marked as completed.

Noise

The extension of the permit boundary and activities which will take place on the new Western Extension have the potential to have affect surrounding noise sensitive receptors.

The operator submitted a Noise Impact Assessment (NIA) with this application, this NIA has been audited and approved by the Air Quality Modelling and Assessment Unit (AQMAU). The outcome of these assessments confirm the sound level emissions to residential receptors throughout the three infilling phases are low risk during the weekdays. However, during Saturday morning period of 07:00 and 13:00 the reduction in background noise is likely to produce and adverse risk to the residential receptor Slough Farm. However, the occupants at Slough Farm are the landowner for the extension area and are fully aware of the development proposals and hours of operation, so there should be no adverse effects of noise at Slough Farm.

The Noise Management Plan (NMP) included with this variation highlighting the potential sources of noise of site, sensitive receptors, and noise mitigation measures, as well as outlining an action plan to follow in the event of a noise complaint. The site has a number of measures in place to reduce the impact of noise to receptors including but not limited to screening embankments/ bunds and hedgerows interspersed with mature trees, adjacent to the screening bunds. The NMP has been reviewed and we consider it to be satisfactory and we approve this plan.

Based upon the information in the application we are satisfied that the appropriate measures will be in place to prevent or where that is not practicable to minimise noise and vibration and to prevent pollution from noise and vibration outside the site.

Dust Management Plan

The extended permit boundary and permitted waste types may produce dust from movement of vehicles and tipping, especially in dry windy weather. The Dust Emissions Management Plan (DEMP) V2 dated March 2020, has been updated and submitted in support of this variation.

The DEMP includes a range of mitigation measures in place to minimise dust emissions from site, including screening bunds implemented in the new area, western extension, to protect the nearest receptors. Best available techniques (BAT) will be used during bund construction such as low drop heights and appropriate profiling designed with sensitivity of residential receptors in mind; the

bund will also be seeded with fast-growing native grass species mix to prevent whipping. The operator will conduct daily checks at site boundaries to visually assess dust emissions from vehicle movements and tipping operations. If necessary mitigation measures will then be employed to reduce emission such as:

- dampening with a water bowser, the operator has confirmed the spray equipment is available and stored within the wider quarry area;
- if dust is being generated by vehicle movement or tipping during bund construction operations will be reduced or ceased; and
- bund construction will not be conducted during winds exceeding 13 mph (winds capable of entraining nuisance dust) or during exceptionally dry periods.

We have reviewed the updated DEMP in accordance with our guidance, we consider it to be satisfactory and we approve this plan.

Amenity Issues

Litter – Permitted waste types have a low risk to generate nuisance litter, and the Operator has control measures in place including litter picking in affected areas and rejection of unsuitable waste loads.

Mud on the roads – Wheel cleaning facilities are provided, all vehicles delivering waste to site shall be sheeted to prevent the escape of debris, dust and particulates from vehicles as they travel.

Waste codes

The operator intends to accept waste which is in line with the Landfill Tax (Qualifying Materials) Order 2011. The operator has requested the waste codes listed below are removed from the permit, none of these wastes have not been landfilled at the site. Table S2.1 – 10 13 14, 17 03 02, 10 05 01, 10 06 01, 10 07 01, 10 11 03, 15 01 07, 19 03 05, 19 03 07, 19 13 02, and 19 13 04. Table S2.2 – 10 11 03, 15 01 07, 17 02 02, 19 12 05 and 20 01 02.

The addition of waste code 19 02 06 has been added, this waste will be sourced from a soil and aggregate washing plant located in the wider quarry.

Decision considerations

Confidential information

A claim for commercial or industrial confidentiality has not been made.

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

Identifying confidential information

We have not identified information provided as part of the application that we consider to be confidential.

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.

The application was publicised on the GOV.UK website.

We consulted the following organisations:

Director of Public Health/ Public Health England

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

We also consulted the following organisations:

Local Authority

Food Standards Agency

Health and Safety Executive

Trending District Council Environmental Health Department

No responses were received.

The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation' and Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

The extent of the facility is defined in the site plan in the permit. The activities are defined in table S1.1 of the permit.

The site

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

The plan is included in the permit.

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 this designated site Ardleigh Gravel Pit SSSI.

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.

SSSI Assessment Form: Appendix 4 has been completed for information only. The proposed permission is not likely to damage any of the flora, fauna or geological or physiological features which are of special interest at Ardleigh Gravel Pit SSSI.

We have not consulted Natural England.

The decision was taken in accordance with our guidance.

Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

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.

Noise management

We have reviewed the noise management plan in accordance with our guidance on noise assessment and control.

We consider that the noise and vibration management plan is satisfactory and we approve this plan, see key issues section for further information.

We have approved the noise and vibration 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'.

The plan has been incorporated into the operating techniques S1.2.

Dust management

We have reviewed the dust and emission management plan in accordance with our guidance on emissions management plans for dust.

We consider that the dust and emission management plan is satisfactory and we approve this plan, see key issues section for further information.

We have approved the dust and emission 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'.

The plan has been incorporated into the operating techniques S1.2.

Updating permit conditions during consolidation

We have updated permit conditions to those in the current generic permit template as part of permit consolidation. The conditions will provide the same level of protection as those in the previous permit.

Waste types

We have specified the permitted waste types, descriptions and quantities, which can be accepted at the regulated facility.

We are satisfied that the operator can accept these wastes for the following reasons:

- they are suitable for the proposed activities
- the proposed infrastructure is appropriate; and
- the environmental risk assessment is acceptable.

Pre-operational conditions

Based on the information in the application, we consider that we need to include pre-operational condition PO1 to ensure groundwater compliance prior to cessation of dewatering is established.

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 with the inclusion of IC3, IC4 and IC5 to establish the groundwater quality baseline from sump and boreholes data; to establish the compliance limits at the compliance point 'Pond C outfall'; and to ensure groundwater compliance limits are reviewed and appropriate limits are set once dewatering has ceased.

Emission limits

Emission and action limits have been added as a result of this variation.

The monitoring point 'Pond C outfall' has been added to table S3.2 which will include a compliance limit which will be determined in accordance with IC4.

Monitoring

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

Table S3.2 has been amended to add groundwater monitoring location 'Pond C outfall', which will be determined in accordance with IC4.

Additional in waste borehole monitoring locations G7, G8, G9, G10, G11, G12, G13, G14, G15, G16, G17, G18, G19, G20, G21, G22, G23, G24, G25, G26, G27, G28, G29, G30, G31, G32, G33, and G34 which are included in drawing KM.MTQ.3.003, dated February 2020.

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.

We only review a summary of the management system during determination. The applicant submitted their full management system. We have therefore only reviewed the summary points.

A full review of the management system is undertaken during compliance checks.

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 Director of Public Health/ Public Health England.

Brief summary of issues raised: Main emissions of potential concern are from products of combustion, dust and noise. The site boundary for this permit application comprises the current extraction area and the proposed western extension. It is understood that wider activities associated with the quarry include the use of the recycling and processing area (located to the north).

Concerns and recommendations:

Further details be provided regarding the assessment of spatial and temporal cumulative impacts from site emissions.

Further details be provided regarding the potential impacts from the processing and recycling areas to ensure consistency is provided in the site boundaries and assessment areas in all of the reports submitted.

Air Quality – reducing public exposure to non-threshold pollutants (such as particulate matter and nitrogen dioxide) below air quality standards has potential public health benefits; it is recommended that further details are provided including the assessment of emissions from non-traffic sources such as fixed plant and equipment or non-road mobile machinery (NRMM); with reference to the Landfill Gas Management Plan, it is unclear why no action limits are proposed for boreholes 9 to 13.

Dust – the Dust Assessment should include details regarding the assessment and mitigation of construction impacts. With regards to Coronation Cottages, no information is provided regarding mitigation measures to limit potential impacts from the creation of the screening bund. Whilst screening of impacts using qualitative methodologies is common practise, where it is possible to undertake a quantitative assessment of impacts then this should be undertaken.

Noise – a noise assessment report and a noise management plan have been submitted. However, these do not seem to reference each other, and it is unclear if these are synergistic. It is recommended the Environmental Health Department to be consulted with regards to any potential impacts from noise from the proposed development and variations taking into account any potential cumulative impacts.

Water – with reference to the Hydrogeological Risk Assessment Report, it is recommended that further details are provided regarding the assessment of impacts on human health receptors and the abstraction points, surface water (including any recreational users as potential receptors). Our records indicate an additional abstraction point to the west of the site (in addition to the ones labelled as S/0320 in the report), this difference should be clarified. Trending District Council Environmental Health Department should be consulted with regards to potential impacts on any nearby private water supply abstraction sites.

Accident Management Plan – limited details are provided regarding off-site impacts of accidents/ incidents, firewater containment and in Table 1, the mitigation of risk from leakage/spills of liquids. The Environment Agency should ensure they are satisfied with the documents submitted.

Summary of actions taken:

The installation is not permitted for any processing and recycling, these are referred to under section 'Other Permits' 2.11 – 2.17 in the application. This activities are out of the scope of this variation so have not been considered during this determination, although cumulative emissions from other permits are considered when necessary.

Air Quality – there are no combustion activities on site, as stated in the application the NRMM operate under regulatory controls and best practise. The potential for air emissions from landfilling such as methane and CO₂ is extremely low due to the nature of the waste.

Dust – additional information regarding the mitigation of dust emissions during bund emplacement has been provided. BAT will be used during bund construction including:

- dampening;
- low drop heights and appropriate profiling designed with sensitivity of residential receptors in mind;
- the bund will be seeded with fast-growing native grass species mix to prevent whipping;
- daily checks will be conducted at site boundaries – if dust is being generated by vehicle movement or tipping during bund construction operations will be reduced or ceased; and
- bund construction will not be conducted during winds exceeding 13 mph (winds capable of entraining nuisance dust) or during exceptionally dry periods.

The dust management plan has been updated to include these mitigation measures. We have reviewed the dust management plan in accordance with our guidance, we consider it to be satisfactory and we approve this plan.

Noise – the noise impact assessment has been reviewed in accordance with our guidance, the outcome of this assessment predicts the worst affected noise

sensitive receptor will be Slough Farm on Saturday mornings during Phase 3. The occupants at Slough Farm are the landowner for the extension area and are fully aware of the development proposals and hours of operation, so there should be no adverse effects of noise at Slough Farm.

Water – we are satisfied this variation will not affect nearby water supply and abstractions, the extension area will also accept inert waste which will not dissolve, biodegrade or adversely affect other matter with which comes into contact in a way likely to give risk to environmental pollution or harm human health. We have also consulted Trending District Council Environmental Health Department with regards to potential impacts on any nearby private water supply abstraction sites, no response was received.

Accident Management Plan – this variation is for the extension of the landfill, this additional landfill phasing will deposit inert waste only. Inert waste by definition is not combustible this variation will not increase the fire risk to the installation. The operator also confirmed that wastes will comply with waste acceptance procedures and therefore present negligible fire risk. All waste is inspected at the weighbridge and at the tipping face: if wastes on delivery vehicles are smoking or burning, they will not be unloaded on to the Site; if smoking or burning material is discovered during the unloading process, it will be smothered with inert material; and once the material is no longer burning/ smouldering, it shall be reloaded back into a sheeted HGV for removal from Site.