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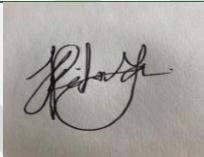
Non-Technical Summary

v1.0

Environmental and sustainability solutions provided to
Enva Scotland Ltd



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REVISION LOG

Revision	Details	Date
0.1	Initial draft	15/01/2026
0.2	Update following return of information	05/02/2026
0.3	Update following client review	26/02/2026
1.0	Reviewed version for submission	04/03/2026

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1.0 SITE DETAILS

The site, operated by Enva Scotland Ltd (hereon referred to as 'Enva'), is a biosolids liming facility located in a rural area of Barnard Castle, County Durham and is currently seeking a Bespoke Environmental Permit for a sludge liming operation outside of a wastewater treatment facility.

1.1 Operational location

Enva Scotland Ltd Biosolids Liming Facility,
West Shaw Farm
Barnard Castle
County Durham
DL12 8UT

1.2 Site grid reference:

NZ 08300 16981

1.3 Permitted activities

The site previously held a Standard Rules Permit SR2008No 19 - 75kte-Non-Hazardous Sludge Biological, Chemical and Physical Treatment Site which has now been withdrawn upon review of several Standard Rules Permits by the EA. The site is now seeking a Bespoke Environmental Permit for the operation of a biosolids liming facility.

1.4 Site description

The site is located within the farmland of West Shaws Farm near Barnard Castle in Northumberland. The site is remote from neighbours (nearest neighbours being a farm steading, south-east of the site at 560m, and Humbleton, north-west of the site at 970m from the site). The River Tee flows approximately 1.5km south of the site.

The site is not located within;

- 500 metres of a European site, Ramsar, SSSI or Marine Conservation Zone (MCZ);

- 50 metres of a National Nature Reserve, Local Nature Reserve, Local Wildlife Site, Ancient woodland or Scheduled Ancient Monument;
- 50 metres of a site that has species or habitats protected under the Biodiversity Action Plan that the Environment Agency considers at risk to this activity;
- 250 metres within the presence of Great Crested Newts where it is linked to the breeding ponds of the newts by good habitat;
- 10 metres of a watercourse.

DRAFT

2.0 BIOSOLIDS LIMING ACTIVITY

2.1 Purpose of the site

The biosolids liming site is used to treat sewage sludge (also known as biosolids) by controlled addition of lime to achieve stabilisation, pathogen reduction, and odour control to produce a stabilised, hygienic material that can be safely and beneficially reused in agriculture. This treatment process helps recycle nutrients, reduce waste sent to disposal, and support sustainable land management.

2.2 What are biosolids?

Biosolids are a by-product of wastewater treatment and contain organic matter and nutrients such as nitrogen, phosphorus, and calcium. Before they can be applied to land under the Safe Sludge Matrix (SSM) [P2357 A/W](#) and [The Sludge \(Use in Agriculture\) Regulations 1989](#), biosolids must be treated to reduce pathogens (harmful microorganisms) and stabilise the material to prevent nuisance such as odour.

2.3 What Is lime treatment?

The treatment is undertaken as an active stabilisation process, carried out in accordance with the Biosolids Assurance Scheme or equivalent, and does not rely on prolonged storage, passive biodegradation, or dilution. Lime treatment is carried out in accordance with the site's Hazard Analysis and Critical Control Point (HACCP) Plan which outlines Critical Control Points and Critical Limits for microbiological parameter control. The process involves adding alkaline materials (typically quicklime or hydrated lime) to biosolids. This raises the pH and temperature of the material for a defined period which (CCP1):

- Reduces pathogens to safe levels
- Stabilises the material and slows biological breakdown
- Significantly reduces odour potential
- Improves handling characteristics

The treated material is commonly referred to as lime-stabilised biosolids. When held at such elevated pH for more than two hours, this technique can deliver Enhanced Treated biosolids i.e. a mean 6 log₁₀ reduction for *E.coli* and Salmonella absent in all samples.

2.4 Treatment process and alignment with Appropriate Measures

The liming process involves the controlled addition of alkaline material to biosolids to achieve and maintain elevated pH for a defined period. This process:

- Suppresses biological activity responsible for odour generation
- Achieves pathogen reduction consistent with recognised treatment standards
- Produces a stabilised material suitable for handling, storage, and onward use

This approach aligns with EA Appropriate Measures (AM) in that:

- It represents active treatment, not dilution or blending
- It reduces environmental risk through process design, rather than relying on mitigation after impacts occur
- It is a recognised and established treatment for biosolids.

The process parameters (lime dosage, mixing effectiveness, retention time) are controlled through the site-specific HACCP, documented procedures and operator competence, ensuring consistent outcomes.

2.5 Site activities

At the site, the following activities take place:

- Delivery of non-compliant biosolids from wastewater treatment works
- Delivery and secure storage of lime
- Controlled mixing of biosolids and lime using dedicated plant and equipment
- Short-term storage of non-compliant biosolids
- Short-term storage of compliant biosolids
- Loading and removal of compliant biosolids for application to land under [The Sludge \(Use in Agriculture\) Regulations 1989](#)

All activities are undertaken in accordance with an environmental permit and approved management procedures.

2.6 Waste streams

Please see the *EPR-OP01 Waste Acceptance Procedure* and Table 2-1: Accepted waste streams below for waste streams to be accepted on to site.

Table 2-1: Accepted waste streams

EWC	Description
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTEWATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE
19 02	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 02 06	wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)
19 06	wastes from anaerobic treatment of waste
19 06 06	digestate from anaerobic treatment of animal and vegetable (sewage sludge only)
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	screenings
19 08 05	sludges from treatment of urban waste water
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	Wastes from mechanical treatment of wastes other than those mentioned in 19 12 11 (sewage sludge only)
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS
20 03	other municipal wastes
20 03 06	waste from sewage cleaning

2.7 Plant description

The mixing plant consists of:

- 1 of industrial mixing unit

- Telehandler

Industrial mixers ensure a homogenous mix quality as lime is added to the sludge in the lime stabilisation process.

Once mixed by the paddles in the mixing chamber the treated biosolids are left to reach >pH11.5 for at least two hours.

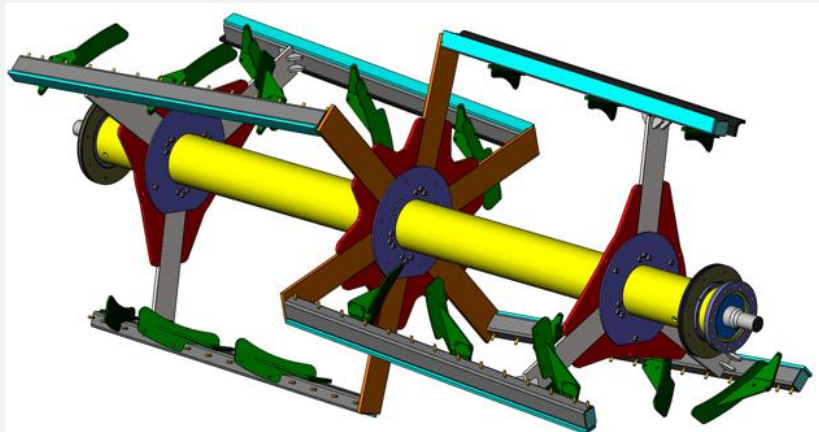


Figure 2-1: Example of an internal mixing chamber



Figure 2-2 - Site boundary plan

2.8 Permitted activities

Permitted activities on site are limited to:

- Treatment by liming (physico-chemical)
- Transfer
- Storage

2.9 Absence of quarantine area – dedicated biosolids liming site

In accordance with [Non-hazardous and inert waste: appropriate measures for permitted facilities - 3. Waste pre-acceptance, acceptance and tracking - Guidance - GOV.UK](#), waste acceptance is a front-end control system intended to ensure that only permitted, described, and suitable waste is accepted onto a site.

1. At this site:

- Only one waste type (biosolids) is accepted;
- Waste is supplied under controlled contractual arrangements.
- The waste description, source, treatment status, and intended recovery use are predefined.

The waste acceptance process therefore operates at a strategic level, rather than on a load-by-load comparative basis between different waste streams.

2. Known and consistent waste stream

AM distinguishes between:

- Variable or mixed waste inputs, where uncertainty exists; and
- Well-defined, consistent waste streams from known producers.

The biosolids accepted at this site fall into the latter category:

- The waste producer is known and pre-approved;
- The waste is generated through a consistent treatment process;
- The physical and chemical characteristics are predictable and controlled through routine producer monitoring.

As such, the guidance expectation for temporary isolation pending classification or verification does not apply.

3. Pre-Acceptance and Acceptance Checks

Consistent with AM, waste acceptance controls are implemented through:

- Pre-acceptance checks, including:
 - Waste description and EWC code confirmation;
 - Treatment history and compliance with land application standards;
 - Review of analytical data and producer declarations.
- On-site acceptance checks, including:
 - Verification of duty of care documentation;
 - Visual and sensory inspection at delivery.

Where waste does not conform to the agreed description, AM anticipates rejection and removal, not prolonged on-site storage.

4. Rejection rather than quarantine

AM does not require quarantine areas in all cases; rather, it requires that:

- Non-conforming waste is identified, and
- Appropriate action is taken to prevent environmental harm.

At this site:

- Any non-conforming load would be rejected immediately and removed from site.
- There is no operational or regulatory benefit in isolating a load on site where:
 - No alternative waste streams are present;
 - No further assessment or reclassification would be undertaken on site.

A quarantine area would therefore not add control or risk reduction.

5. No risk of cross-contamination

A key function of quarantine under AM is to prevent:

- Cross-contamination between wastes of differing characteristics; or
- Mixing of authorised and unauthorised waste.

Because the site accepts only one waste stream, there is no credible pathway for cross-contamination, other than for treated and non-treated biosolids. The guidance intent is therefore met through waste acceptance controls alone.

6. Proportionate application of guidance

The AM is explicit that waste acceptance measures should be:

- Risk-based, and
- Proportionate to the nature of the operation.

In this context:

- The waste is homogeneous and source-controlled;
- Acceptance decisions are binary (accept or reject);
- Quarantine infrastructure would be redundant and unused in normal operation.

Due to the above justification in addition to site capacity of 1,000t/week, with a 45,000t annual throughput to allow for expansion.

2.10 Site throughput

Not exceeding 45,000t/yr

2.11 Operational hours

The sites operational hours are noted in the table below:

Table 2-2: Typical site operational hours

Weekday	Operational Hours
Monday to Friday	07:00 – 19:30
Saturday	07:00 – 19:30
Sunday	When required
Bank Holiday	When required

3.0 ENVIRONMENTAL CONTROLS AND SAFEGUARDS

3.1 Odour control

The site accepts biosolids arising from wastewater treatment processes. These materials are biodegradable and generate odour if left untreated. However, they are also well understood waste streams for which established treatment standards exist.

The activity does not involve prolonged storage of untreated waste, nor does it rely on passive biodegradation. Instead, risk is controlled through immediate chemical stabilisation, which is consistent with expectations that odour risk should be addressed at source.

Odour risks are controlled through:

- Rapid treatment of incoming biosolids
- Maintaining the correct lime dosage and mixing effectiveness
- Minimising storage times of untreated material
- Good site housekeeping and operational controls

These measures significantly reduce the likelihood of off-site odour impacts.

3.2 Operational controls

The site operates under an odour-aware management regime, including:

- Defined acceptance and treatment windows

- Housekeeping procedures to prevent residual waste build-up
- Operator training to recognise and respond to odour risk conditions

The liming process itself materially reduces odour potential, such that treated biosolids have a significantly lower propensity to generate odour during storage and loading.

3.3 Protection of water and land

The site is designed and operated to prevent pollution of soil, surface water, and groundwater.

Key controls include:

- Impermeable working surfaces
- Drainage systems that collect and manage run-off
- Secure storage of materials
- Regular inspection and maintenance
- No untreated material is allowed to enter the surrounding environment.

3.4 Noise, dust, and traffic

Noise and dust are limited by the use of modern, well-maintained equipment and controlled operating practices. Vehicle movements are managed to avoid unnecessary disturbance and are generally comparable to other permitted waste or agricultural operations.

4.0 PROTECTION OF ENVIRONMENTAL RECEPTORS

4.1 Land and groundwater

The use of impermeable surfacing and contained operations ensures that biosolids and leachate do not come into contact with underlying soils. Drainage is managed to prevent infiltration, consistent with Appropriate Measures for pollution prevention.

4.2 Surface water

Run-off from operational areas is controlled and managed. There are no routine discharges of untreated effluent to surface waters. The concrete pad is designed to retain water and collect it to the rear of the slab. At the rear of the slab there is a sump which is connected to a tank via sealed pipework.

Sewage cake does not readily leach liquids and naturally absorbs quantities of rainwater. As such, the drainage contingencies in place are assessed as being adequate for this site.

4.3 Air quality

Air emissions are limited to those associated with normal site operations. Odour is controlled at source through stabilisation, and dust from lime handling is managed through controlled handling and storage practices.

5.0 MANAGEMENT SYSTEMS AND COMPETENCE

The operator maintains a documented management system aligned with EA Appropriate Measures, including:

- Defined operating procedures
- Waste acceptance controls
- Staff training and competence requirements
- Inspection and monitoring regimes
- Record-keeping to demonstrate compliance

This ensures that the site is operated consistently and that deviations from normal conditions are promptly identified and addressed.

6.0 SAFE SLUDGE MATRIX AND BIOSOLIDS ASSURANCE SCHEME COMPLIANCE

The operation is undertaken in accordance with the Safe Sludge Matrix and the Biosolids Assurance Scheme, which provides an additional framework for managing risks associated with the use of biosolids.

In particular:

- The lime treatment achieves pathogen reduction consistent with the compliance schemes Matrix requirements
- End uses are restricted to those permitted under the schemes with appropriate crop and land-use controls
- Both schemes provide an additional assurance layer beyond permitting, particularly in relation to human and animal health protection

While the Safe Sludge Matrix and the Biosolids Assurance Schemes are not statutory, their application demonstrates adherence to industry best practice and supports the conclusion that risks are appropriately managed.

7.0 STORAGE, HANDLING, AND DISPATCH OF TREATED BIOSOLIDS

Treated biosolids are stored only for short periods prior to removal from site. The stabilised nature of the material significantly reduces odour and handling risk during storage and loading.

Movements of material are managed to prevent nuisance and are consistent with the scale and nature of the permitted activity.

8.0 SITE MANAGEMENT

Site management will comprise of the following staff members:

- A Technically Competent Manager (TCM); who will manage the operation and regularly attend site in compliance with the defined attendance requirement.
- A site supervisor; who will be responsible for the ongoing operation who may also undertake office and plant operation duties; and
- Other trained plant operators as required.

9.0 SITE CONDITION REPORT

A Site Condition Report (SCR) has been produced for this application.

The facility will operate with due regard to the conditions of the environmental permit and all relevant environmental legislation to ensure that land and groundwater is protected during the lifetime of the site and that the land is in a satisfactory state when the permit is eventually surrendered.

The possibility of any significant releases to the ground occurring during the lifetime of the permit is limited. Minor spillages, if they occur, are dealt with immediately by trained staff using appropriate spill response procedure and spill kits located around the site.

10.0 CONCLUSION

The biosolids liming activity has been assessed against EA Appropriate Measures for biowaste treatment and EA odour management guidance.

The assessment concludes that:

- The treatment process actively reduces environmental risk at source
- Odour is effectively prevented and minimised through rapid stabilisation
- Site design and infrastructure provide appropriate containment
- Management systems and operator competence are sufficient
- Compliance with the Biosolids Assurance Scheme and Safe Sludge Matrix provides additional assurance

On this basis, the activity is considered to represent appropriate and proportionate control of environmental risk and is suitable for permitting subject to standard conditions.

10.1 Potential for odour from untreated biosolids storage

Storage of untreated biosolids may lead to odour generation.

Response:

Untreated biosolids are not subject to prolonged storage. Materials are treated promptly upon arrival through lime stabilisation.

This approach aligns with EA guidance that odour should be prevented at source. The process design eliminates reliance on storage-based mitigation.

10.2 Effectiveness and consistency of lime treatment

Variability in lime dosing or mixing could reduce treatment effectiveness.

Response:

The operator applies controlled dosing and mixing in accordance with documented procedures. Staff are trained in process control, and treatment outcomes are inherent to the established liming methodology.

The process is widely recognised as an effective stabilisation technique for biosolids.

10.3 Odour from treated biosolids during storage or loading

Even treated biosolids may generate odour during handling.

Response:

The liming process materially reduces biological activity and odour potential. Treated biosolids are stored only for short periods and handled in a controlled manner. Residual odour risk is therefore low and consistent with other permitted biowaste operations.

10.4 Pollution of land or groundwater

There is potential for contamination if biosolids or run-off contact the ground.

Response:

All operations take place on impermeable surfaces with managed drainage. There is no direct pathway to land or groundwater.

These controls meet Appropriate Measures for containment and pollution prevention.

10.5 Reliance on the Safe Sludge Matrix and Biosolids Assurance Scheme

The Safe Sludge Matrix and the Biosolids Assurance Scheme are not statutory.

Response:

Neither compliance schemes are relied upon in isolation. Both are applied in addition to permit controls and Appropriate Measures, providing further assurance in relation to pathogen control and end-use restrictions.

10.6 Proximity to sensitive receptors

Nearby receptors may be affected by odour or operational impacts.

Response:

The stabilisation process significantly reduces odour generation at source. Combined with controlled operations and housekeeping measures, this ensures impacts at sensitive receptors are unlikely.

11.0 BUSINESS INFORMATION

11.1 Company name

Enva Scotland Ltd

11.2 Company number

SC057052

11.3 Companies House Link

[ENVA SCOTLAND LIMITED overview - Find and update company information - GOV.UK](#)

11.4 Date accessed

12th February 2026

Table 3: Director details

Name	Date of birth
Jason Russel Gary ASHTON	04 April 1967
Roger McDERMOTT	02 November 1983
Iain Cyril WASHER	12 August 1969

11.5 Additional documents

Table 4: Application documents

Reference code	Document title

EPR-A01	Supporting Information
EPR-A02	Appropriate Measures Assessment
EPR-B01	EMS Manual
EPR-C01	Environmental Risk Assessment
EPR-C02	Odour Management Plan
EPR-C03	Accident Management Plan
EPR-C04	Odour Risk Assessment
EPR-OP01	Waste Acceptance Procedure
EPR-OP02	Waste Treatment Procedure
EPR-OP03	Monitoring Procedure
EPR-OP04	Environmental Permit Reporting Procedure
EPR-OP05	Recording Procedure
EPR-B02	Site Capacity Assessment