

Compliance Assessment Report CAR_NRW0048317

Permit being assessed: YP3138UJ.

For: Llwyn Isaf Landfill, **held by:** Gwynedd Council

At: Llwyn Isaf Landfill Site , Clynnog Fawr, Gwynedd, LL54 5DF.

Type of assessment: Site Inspection,

Reason: Other.

On: 16/04/2025 between 10:00 and 13:30.

Parts of permit assessed: 1, Management, 3, Emissions and Monitoring.

NRW Lead Officer: Anthony Roberts.

Report sent to: Endaf Williams, Site Manager, on 15/05/2025.

1. Summary of our findings (full details in section 4)

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR3A(1) - Installations - Emissions and monitoring - Emissions to water	C3 Minor	3 Emissions, Table 3.3.

Result types are explained in more detail in the 'Important Information' section below.

Total non-compliances recorded	Total non-compliance score
1	4

How we use the non-compliance score to calculate your annual fee is explained in the 'Important Information' section below.

2. What action is required?

Criteria	Action needed	Complete by
IR3A(1)	Investigation and sampling of the site drain leading into the attenuation lagoon.	30/06/2025

Compliance criteria codes are listed in the 'Important information' section below.

3. What will happen next?

Any non-compliance we have identified and recorded on this form is an offence. It can result in criminal prosecution and/or suspension or revocation of your permit.

At this time, we do not intend to take any further action.

This statement does not stop us from taking additional enforcement action if further relevant information comes to light or offences continue.

4. Details of our assessment

Llwyn Isaf Landfill - Permit Review Meeting and Site Inspection

16th April 2025

10:00 hrs

Present: Michelle Moran, Lucinda Wynne (Egniol), Caron Rees Jones, Endaf Williams (Gwynedd), Tony Roberts (NRW)

A brief overview of the outstanding issues with the permit and the site including the LERP report and CAR form was discussed with all parties. A summary of issues and actions is presented below:

1. **Closure and Aftercare Plan** for the site is missing and cannot be located in council records. Gwynedd to check public register and NRW to check and search out databases. A copy should be permanently kept at the permitted site.
2. **Written Management System** and Records is missing and cannot be located in council records. Gwynedd to check public register and NRW to check and search out databases. A copy should be permanently kept at the permitted site
3. **Copy of permit** should be permanently kept in the site office and staff should be familiar with the requirements.
4. **2.7 leachate levels:** Schedule 3.1 can be agreed in writing in terms of monitoring frequency. **ACTION:** Egniol to review and respond.
 - No leachate level breaches have been reported as tankering of leachate occurs throughout the year.
 - **ACTION:** Basal drawing for leachate comparison to be provided to Michelle by Gwynedd.
 - The volume is 27 tonnes (27,000 litres approx.), per load, at least twice per month occasionally three.
 - **ACTION:** An investigation looking at dry weather leachate production and rainfall comparisons with inundation/GW levels, should be undertaken to establish the cause of the excess leachate.
 - **ACTION:** Egniol to look into quality and volume generation, compare real AOD

from basal drawing to actual leachate levels GW levels and rainfall vs inundation levels.

5. **Gas management plan** – This is available, will be available on site. Higher methane levels in some of the perimeter boreholes. They are between the two sites. Boreholes G6 and G7 show methane breaches thought to be from the old unlined site which is a legacy issue. Base of old waste compared to the next layer of permeable strata geologically downgradient will probably show very low risk but should be confirmed by investigation. The breaches will then be reviewed in the light of findings.
6. **HRA** – 6 yearly reminder of where we are
7. **Condition 3.5, Monitoring 3.5.1 states:** The operator shall, unless otherwise agreed in writing by Natural Resources Wales, undertake the monitoring and any other actions specified in the following tables in schedule 3 to this permit: (a) Leachate specified in tables S3.1 and S3.8; (b) Point source emissions specified in tables S3.2 and S3.3; (c) Groundwater specified in tables S3.4 and S3.10; (d) Landfill gas specified in tables S3.5, S3.6 and S3.7; and (e) Surface water specified in table S3.9; 3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data. **ACTION:** Egniol to review this condition and associated tables to harmonise sampling frequency and analysis.
8. **Condition 3.5.3;** A topographical survey of the site referenced to ordnance datum shall be carried out: (a) annually, and (b) following closure of the landfill or part of the landfill. The topographical survey shall be used to produce a plan of a scale adequate to show the surveyed features of the site. **ACTION:** Egniol to review and propose less frequent topographical survey.
9. **Table 6.3 - methane flux testing** - frequency can also be agreed in writing, Currently annual, possibly agree every two years. **ACTION:** Egniol to rationalise and include in review. **NOTE:** Vegetation dieback raised in the LERP report could not be confirmed as such on re-analysis.
10. **ACTION:** Caron to send the gas balancing data through to Michelle to allow an assessment of the source term. £65k bid for a new flare not successful need to look at maybe shutting it down for longer periods. Is there a de-minimus where the control can stop?
11. Flaring – site currently extracting 17m³/hr can we look at pulsing over longer periods of time.
12. Schedule 5s should be submitted for all breaches from the date of this meeting.

LERP Findings

Signage, New site drawing, gas mains and O2 issues, some sampling points to be replaced, DSEAR assessment of the site. Egniol booked in for June reply to LERP report in July

Attenuation Lagoon Discharge and Afon Desach

During the site inspection, DO meters were used to check the DO in the Afon Desach a few metres downstream from the attenuation lagoon discharge point. DO in the surface water at the bridge just downstream of this discharge point was 60% This is very low. Upstream was also 60% DO, again very low for this river. The discharge from the attenuation lagoon was 30% Oxygen saturation and there were traces of sewage fungus, which implies nutrient loading.

ACTION: An investigation should be conducted into the septic tank and interceptor facilities/discharge points on the site. These discharges flow directly to the attenuation lagoon. This may be the cause of the sewage fungus and low DO.

ACTION: The low dissolved oxygen discharge from the attenuation lagoon (30% as measured with site DO meters on the day) appears to be significantly below the permit limit of 80% minimum. (Table S3.3) This means a score of CCS3 is applied for this breach.

Samples should be taken along the line of the internal site drain leading to the attenuation lagoon (see line from interceptor in blue below) including the final discharge which cover the determinands required in table S3.3. and should include; ammonia, BOD and suspended solids.

ACTION: Check and analyse previous samples taken at these points and Biogen samples to help with tracing the apparent issues in this drainage system.

ACTION: Gwynedd and NRW to check possible issues with the low DO upstream of the site which was tested on the day and still found to be no better than 60% DO.

These actions and any findings should be completed and submitted to NRW by the 30th June 2025.



If you have any queries about this report, or to discuss completion of any actions, please contact the NRW Officer named above.

Important information

Legal status of this report

Your permit is issued to you under the Environmental Permitting Regulations. You have a responsibility to comply with the conditions of your permit and prevent pollution/harm of the environment. You must also ensure that you comply with any other relevant legislation that may apply to your site's operations.

This report explains the findings of our assessment and any action you are required to take. We categorise non-compliance using our guidance for assessing non-compliance at regulated sites.

When we find potential non-compliance/s we will normally give you advice on how to maintain compliance.

To correct non-compliance, we may:

- require you to take specific actions
- issue a notice
- review the conditions of your permit.

Any advice and guidance we give will be without prejudice to any other enforcement response that we consider may be required.

Assessment results and non-compliance categories (used in section 1):

Assessment result	Description
Assessed (A)	Assessed or assessed in part, no evidence of non-compliance found
Action only (X)	Action only relating to the activity assessment
Ongoing (O)	Ongoing non-compliance, not scored

Non-compliance category	Description	Score
C1 Major	Potential to have a major, serious, persistent and/or extensive impact or effect on the environment, people and/or property	60
C2 Significant	Potential to have a significant impact or effect on the environment, people and/or property	31
C3 Minor	Potential to have a minor or minimal impact or effect on the environment, people and/or property	4
C4 No environmental impact	Non-compliance at a regulated site that cannot foreseeably have any impact on the environment, people and/or property	0.1

How we use assessment scores

The number and severity of non-compliances recorded in a year will affect your annual subsistence fee the following year. A non-compliance factor is added to your site's Operator

Performance Risk Appraisal (OPRA) score when we calculate your fee to reflect the additional resource we use to assess permit compliance.

If your assessment result in Section 1 is suspended, what does this mean?

In line with our guidance, we may suspend scores for up to six months to allow time for remedial action to be taken. Suspended scores will be re-instated if the action is not completed.

Full list of Industry compliance criteria (used in section 1 and 2):

1. Management

- IR1A – General management
- IR1B – Finance (only applicable to Landfill)
- IR1C – Energy efficiency
- IR1D - Efficient use of raw materials
- IR1E - Avoidance, recovery and disposal of wastes produced by the activities
- IR1F - Multiple operator installations

2. Operations

- IR2A – Permitted activities
- IR2B – The site
- IR2C – Operating techniques
- IR2D – Technical requirements
- IR2E – Improvement programme
- IR2F – Pre-operational conditions
- IR2G – Landfill engineering (only applicable to Landfill)
- IR2H – Waste acceptance (only applicable to Landfill)
- IR2I – Leachate levels (only applicable to Landfill)
- IR2J – Closure and aftercare (only applicable to Landfill)
- IR2K – Landfill gas management (only applicable to Landfill)

3. Emission and Monitoring

- IR3A – Emissions to water, air or land
- IR3B – Emissions of substances not controlled by emission limits
- IR3C – Odour
- IR3D – Noise and vibration
- IR3E – Monitoring
- IR3F – Pests
- IR3G – Air quality management plans
- IR3H – Monitoring for the purposes of the Industrial Emissions Directive (this heading includes Large Combustion Plants)
- IR3I – Fire

4. Information

- IR4A – Records
- IR4B – Reporting
- IR4C – Notification

Enforcement response

Any non-compliance with a permit condition is an offence and we may take legal action against you. Action we take can include prosecution, serving a notice on you and/or

suspension or revocation of your permit. See our Enforcement and Sanctions Guidance for further information.

Data protection notice

You should make sure that anyone named in this report knows that the information it contains will be processed by Natural Resources Wales to fulfil its regulatory and monitoring functions and to maintain the relevant public register(s).

We may also use and/or disclose the report in connection with:

- offering or providing you with our literature or services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law
- assessing customer service satisfaction and improving our service
- Freedom of Information Act or Environmental Information Regulations requests.

We may also pass it on to our agents or representatives to do these things on our behalf.

Disclosure of information – this report will be available to view on-line

If you think this report contains commercially confidential information that should not be placed on our public register, you must contact your local Natural Resources Wales office within **fifteen working days** of receiving this report, using the contact details in the accompanying email or letter. You must give a full explanation of why it should not be added to our public register, including specifying which information is commercially confidential. We will assess your request and respond to you within twenty working days to let you know if we agree to your request.

What do I do if I disagree with the report or have a complaint?

If you disagree with this compliance assessment report, you should contact the lead officer without delay to discuss your concerns.

If you are unable to resolve the issue with the lead officer or their line manager you should contact our Customer Contact team on 0300 065 3000 (Monday to Friday 08:00 to 18:00), or email enquiries@naturalresourceswales.gov.uk for details of how to raise your dispute further through our Complaints and Commendations procedure.

If you are dissatisfied with our response, you can contact the Public Services Ombudsman for Wales by phone on 0300 7900203 or by email at ask@ombudsman.wales

Welsh Language Standards

We are committed to establishing Natural Resources Wales as a naturally bilingual organisation. We will provide compliance reports in your preferred language.