

Compliance Assessment Report CAR_NRW0052189

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: Other,

Reason: Other.

On: 28/05/2026 between 10:00 and 12:30.

Parts of permit assessed: 1. Managaement, 2.5 Landfill Engineering, 2.7, Leachate Levels, 2.9 Landfill Gas Management, 3. Emissions and Monitoring.

NRW Lead Officer: Anthony Roberts.

Report sent to: Endaf Williams , Site Manager, on 25/06/2026.

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

Part of permitted activity assessed (compliance criteria)	Assessment result	Permit condition
IR1A - Installations - Management - General Management	Assessed (A)	
IR2A - Installations - Operations - Permitted activities	Assessed (A)	
IR2G - Installations - Operations - Landfill engineering (only applicable to landfill)	Assessed (A)	
IR2I - Installations - Operations - Leachate levels (only applicable to landfill)	Assessed (A)	
IR2K - Installations - Operations - Landfill gas management (only applicable to landfill)	Assessed (A)	

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

Total non-compliances recorded	Total non-compliance score
0	0

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?

No action required.

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 – Site Meeting and Inspection

Surface Water, Groundwater, Gas and Leachate Management /Engineering

Attendees:

NRW: Tony Roberts, Sarah Walton

Egniol: Michelle Moran, Lauren Williams, Connall Darlington

Gwynedd CC: Caron Rees- Jones, Endaf Williams, Idris Wynne-Jones

28/05/2026

10:00hrs-12:30hrs

Surface Water/Afon Desach

The Afon Desach has shown historical low levels of dissolved oxygen both upstream and downstream of the site. Following detailed investigations of the site drainage and discharge points including from the Biogen AD Plant, the site does not appear to be having a significant affect on the river. Any derogation in the dissolved oxygen seems to be a catchment issue which requires separate investigation.

Actions:

- Caron Jones to provide a site drainage sketch to Egniol to enable a more detailed CAD drawing to be constructed. This will enable a more complete overview of site drainage and all discharge points for future reference. This should include the discharge point of the sites sewage treatment plant. *Completed drawing to be submitted to NRW by 30th July 2026*
- All parties to check for the re-appearance of sewage fungus in the settlement lagoon discharge area once discharge re-starts.
- Groundwater flows to be checked in relation to the proximity of the river and discharge

points. **To be completed by 30th July 2026**

Gas Migration and Control

Actions:

- The gas monitoring wells G6 and G7, between area 2 and the occupational buildings in area 1 regularly breach permit limits for methane. The site is unlined and gas production is very low which does not allow for subtle control of gas diffusion at very low volumes.
- A simple desk based risk assessment should be submitted by Cyngor Gwynedd taking into account the following:
 1. Any gas wells such G1A which could be considered a sentinel well as it is closer to occupational buildings.
 2. G6 and G7 are not in close proximity to the occupied buildings in Area 1. This should be taken into account when assessing risk.
 3. The depth of gas wells G6 and G7 compared with the depth of waste in Phase 2 close to where the wells are situated.
 4. Consideration to be given to drilling a single sentinel well between Area 2 and Area 1. depending on the outcome of the risk assessment.
 5. Geology and groundwater between these wells and the occupational buildings is also a factor.
 6. **This assessment should be completed and submitted to NRW by the 30th July 2026.**
- As part of the risk assessment there is potential for the installation of a gas alarm in the occupational building which is an industry standard safety feature giving surety for the long term. **Please assess the cost benefit of this action and submit findings to NRW by the 30th July 2026.**
- **Please note;** NRW is not scoring the methane breaches in wells G6 and G7 at this current time as they are deemed to be low risk and no further action can be taken to exert control without inappropriate excessive cost. This will be reviewed in the light of the findings of the risk assessment. NRW reserve the right to re-instate scores for any permit breach at it's discretion.

Leachate levels and trial results

Actions:

Following a pumping trial and leachate assessment by Egniol on behalf of Cyngor Gwynedd the

following conclusions were drawn:

- The site is lined using a bentonite enhanced sand/HDPE composite liner, which can be subject to basal heave under certain groundwater conditions.
- The trials conducted by Egniol, have excluded the ingress of groundwater through the liner as the cause for excess leachate generation.
- The Infiltration of surface water through tears in the LLDPE cap are thought to be the likely cause of this issue
- As the leachate levels are under control due to the pumping and tankering of leachate, basal levels do not breach permit conditions, therefore a site survey to estimate where the water might be seeping in and the low spots on the surface of the site might reduce the infiltration. As surveys with a TDL and topographical surveys have been undertaken, it should be possible to identify areas of infiltration and estimate the cost of repair compared to the long term cost of tankering. This pertains to the site management condition 1.
- Please submit the results of the topographic and well/TDL survey (where gas extraction has been switched off for at least a day (with all of the usual caveats)), to ensure detection of gas leaks, through positive pressure leakage) and hence potential infiltration areas **by 30th July 2026**.
- A limited amount of repair may reduce ingress to reduce tankering leachate off site and provide an ROI and better control of leachate in the long term.
- The outcome of this survey will be discussed at a site meeting in September 2026.

Hazardous Substances Monitoring

Actions:

- Hazardous substances which are not found in leachate should not be analysed for in groundwater monitoring wells. Egniol to forward a list of such determinands by 30th July 2026, so NRW can assess and issue an MOU to cease this monitoring with immediate effect. This may be included in any future variation.

Gas Balancing & Flare

Actions

- The site flare currently runs for 10 hours per day. Gas quality at the end of this period is reduced.
- To ensure efficient combustion and compliant emissions, flare management should be re-assessed with reference to the gas migration risk assessment and the observed gas quality. **Please submit a rationale for flare management to NRW by the 30th July 2026.**

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 required for the permit condition assessed to avoid non-compliance. No non-compliance scored at this time
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(1) – Emissions to water
- IR3A(2) – Emissions to air
- IR3A(3) – Emissions to 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.

Disputing the Content of this Compliance Assessment Report Form

If you disagree with the content of this Compliance Assessment Report form, you should submit your concerns, in writing, to the regulating officer who issued it within **15 working days** of its issue. This will be treated as a **Stage 1 review**.

If you are not satisfied with the outcome of the stage 1 review, you may request a **Stage 2 appeal**. This request must be submitted **within 21 working days** of receiving the response from the stage 1 review.

Further details on our review and appeal process are available at: [Natural Resources Wales / Appeal a regulatory decision from Natural Resources Wales](#)

Concerns Not Related to the Content of this Compliance Assessment Report Form

If your concerns do not relate to the content of the Compliance Assessment Report form, you should first attempt to resolve the issue with the regulating officer or their line manager.

If the issue remains unresolved, please contact our **Customer Contact Team**:

- **Telephone:** 0300 065 3000 (Monday to Friday, 09:00–17:00)
- **Email:** enquiries@naturalresourceswales.gov.uk

They will provide details on how to escalate your concerns through our **Complaints and Commendations procedure**.

If you are dissatisfied with our response, you may contact the **Public Services Ombudsman for Wales**:

- **Telephone:** 0300 790 0203
- **Email:** 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.