



**Cyfoeth  
Naturiol**  
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**Natural  
Resources**  
Wales



**Withyhedge Landfill /  
Safle Tirlenwi Withyhedge**

**Odour and Pollution Issues Meeting /  
Materion Arogl a Llygredd**

**January 2024 / Ionawr 2024**

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## Introductions / Cyflwyniadau

Huwel Manley – Head of Operations, South-West Wales

Caroline Drayton – Operations Manager, South-West Wales

Erin Smyth-Evans – Industry Regulation Team Leader

Neil Herbert – Senior Specialist, Industry Regulation

Tyrone Ward - Senior Specialist, Industry and Waste Regulation - Landfill

Rhodri Morgan – Senior Officer, Industry Regulation

Katy Simmons – Senior Communications Officer



## Aims / Nodau ac amcanion

To provide clarity around NRW's role and responsibilities in relation to Withyhedge Landfill;

To give an overview of the permitted activity at Withyhedge, including an introduction to how a landfill works;

Provide information on our recent and relevant regulatory activity;

Address next steps in relation to odour remediation;

Provide opportunity for questions to be asked and answered.





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## Environmental Permit Details / Manylion Trwydded Amgylcheddol (MP3330WP)

Governing legislation – Environmental Permitting (England and Wales) Regulations 2016 (EPR)

- Covers permits for waste operations, installation (industry – including landfills), water discharges, flood risk activities and many more activities

Withyhedge Landfill has had several variations over the years – previous permit numbers:

- GP3630HT
- BP3131SG

Current version allows:

- Acceptance of up to 250,000 tonnes per annum (calendar year)
- Extensive list of non-hazardous wastes from a variety of sources

Permit requirements:

- Environmental Monitoring
- Construction Quality Assurance (CQA) standards.

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## What is not covered by the Permit / Beth sydd heb ei gynnwys yn y drwydded (MP3330WP)

### Origin of Waste:

- EPR does not include provision for NRW to include limits regarding waste origin in permits. The landfill is privately owned and therefore the owners can decide from where to bring waste.

### Operating Hours:

- Operating hours are considered by the local authority as part of the planning permissions for the site. They are not considered under EPR.

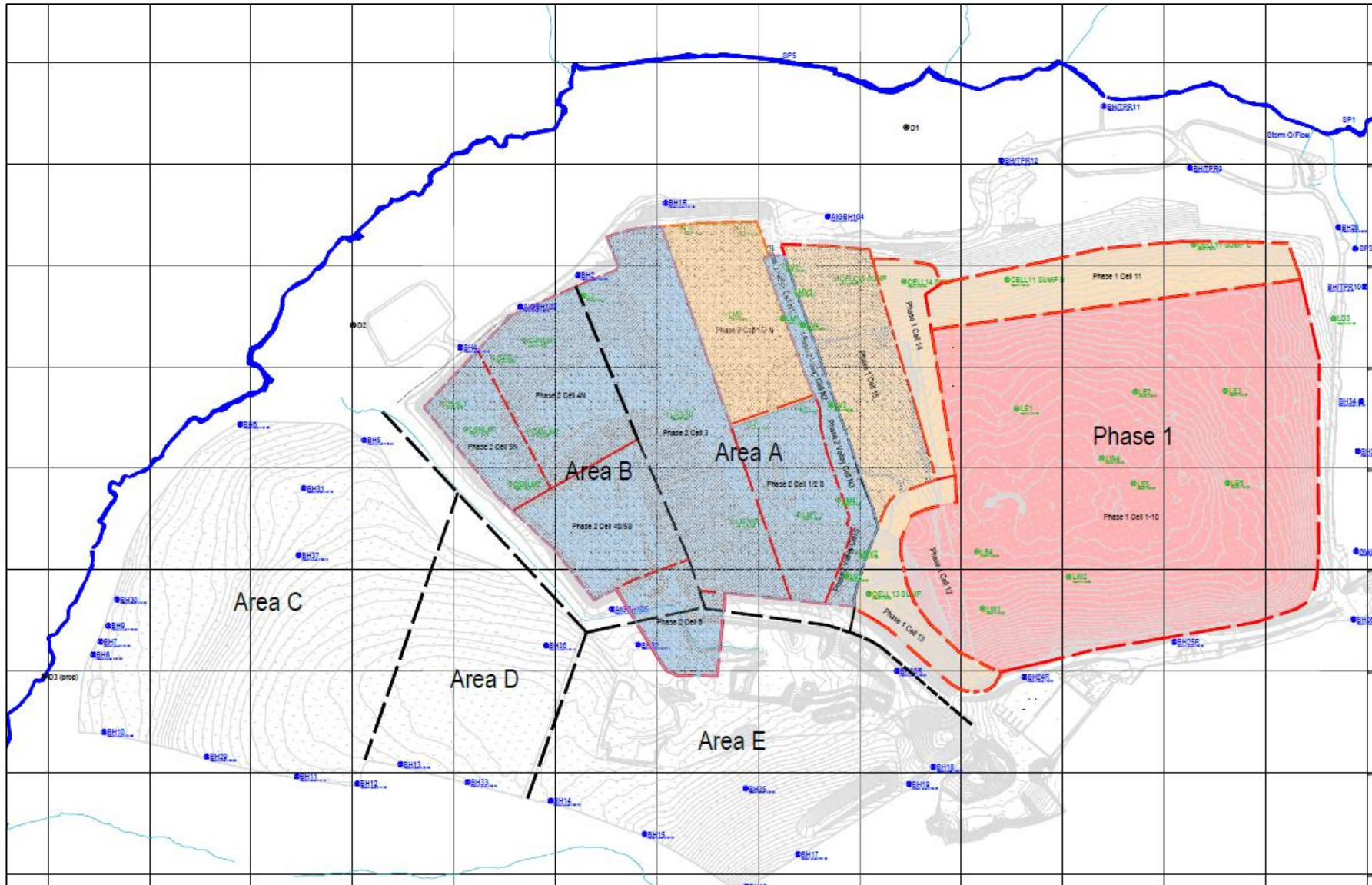
### Vehicle Numbers:

- Vehicle numbers are not considered under EPR. Restrictions on the amount of waste entering the site is governed by the waste limit in the permit.

### Transport Policy:

- Traffic movements are considered by the relevant County Council as part of the planning permissions for the sites. They are not considered under EPR.

# Environmental Monitoring / Monitro Amgylcheddol



Environmental Monitoring requirements:

- Groundwater
  - Level
  - Quality
- Landfill Gas
  - In waste
  - External Boreholes
  - Capped surfaces
- Leachate
  - Level
  - Quality
- Surface Water
  - Site discharge (D1)
  - Rudbaxton Water

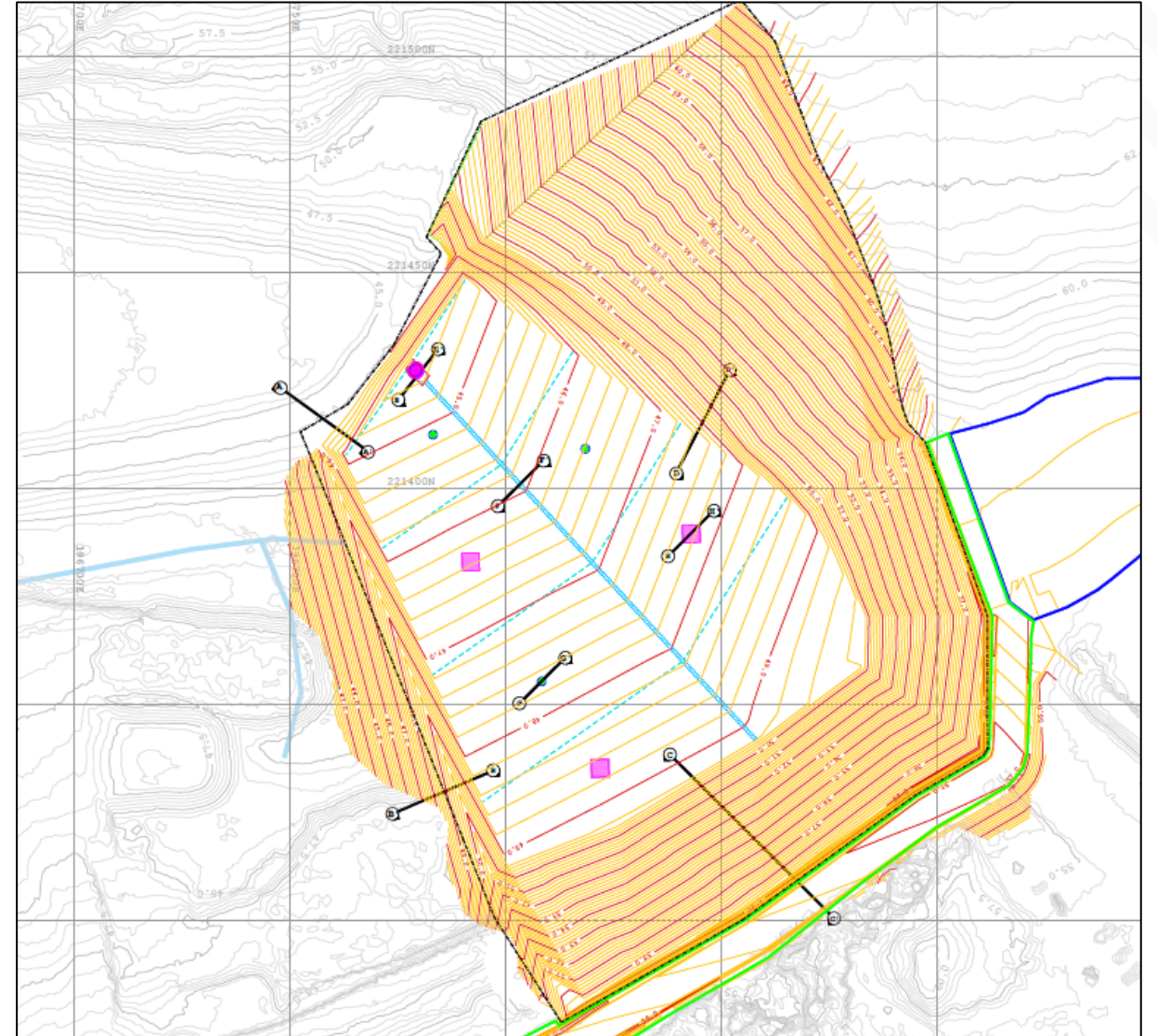
## Construction Quality Assurance / Sicrwydd Ansawdd Adeiladu (CQA)

CQA is required for all aspects of landfill engineering and infrastructure, including:

- Landfill Cell Construction
- Capping Systems
- Leachate Abstraction System
- Landfill Gas Management Systems

CQA Plans must be submitted and approved by NRW prior to the works commencing.

Waste disposal in a new cell cannot commence until a CQA validation report has been submitted and NRW has confirmed it is satisfied with it.





## Landfill Gas Management / Rheoli Nwy Tirlenwi



Landfill gases are produced by biodegradable waste in the landfill as it breaks down.

It contains mostly methane and carbon dioxide, but also several other 'trace' gases present in very small quantities (around 1% in total).

The Site must take measures to:

- collect landfill gas
- control the emission of landfill gas

The collected landfill gas is either utilized to produce energy in the sites GUP or flared.

Landfill Gas infrastructure is installed in a phased manner as the Site develops.

## Leachate Management / Rheoli Trwytholchion



Leachate consists of rainwater which has percolated through the waste in the landfill which then collects at the base of the landfill.

Leachate is collected from the landfill via a series of leachate extraction wells.

Pumped to a series of leachate holding tanks before it is removed from site by tanker for authorised treatment and disposal.

Leachate levels and volumes reported on a quarterly basis.

Leachate infrastructure is installed as part of the construction of the cell.

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## Surface Water Management / Rheoli Dŵr Wyneb

Surface water run-off from restored phases at the site is channelled into a sequence of engineered lagoons.

The lagoon system discharge into Rudbaxton Water, the watercourse which runs adjacent to the site.

Permitted discharge point (D1) with emission limits on several parameters.

Monthly monitoring frequency.



## Regulation in NRW: How? / Rheoleiddio yn CNC: Sut?

### Regulation of Authorised Activities:

- Assessing Compliance
- Enforcement Options

### Range of Regulatory Tools to achieve desired outcome:

- To stop offending
- To restore/remediate
- To punish/deter
- Bring into compliance

### Regulatory Principles:

- Proportionate
- Transparent
- Targeted
- Consistent
- Accountable



# Regulation under Environmental Permitting Regulations 2016 / Rheoleiddio o dan Reoliadau Trwyddedu Amgylcheddol 2016

The Environmental Permitting (England and Wales) Regulations 2016 requires us to inspect sites with permits:

- 34.** — (2) The regulator must make appropriate periodic inspections of regulated facilities.
- NRW adopt a risk based approach to site regulation.
  - In addition to inspections, review of data and reports – Compliance Assessment Reports available on Public Register.

Through our inspection and compliance assessment activity we may detect permit condition non-compliances.

- 38.** — (2) It is an offence for a person to fail to comply with or to contravene an environmental permit condition.
- Our response to these depends on the outcome sought and Public Interest factors

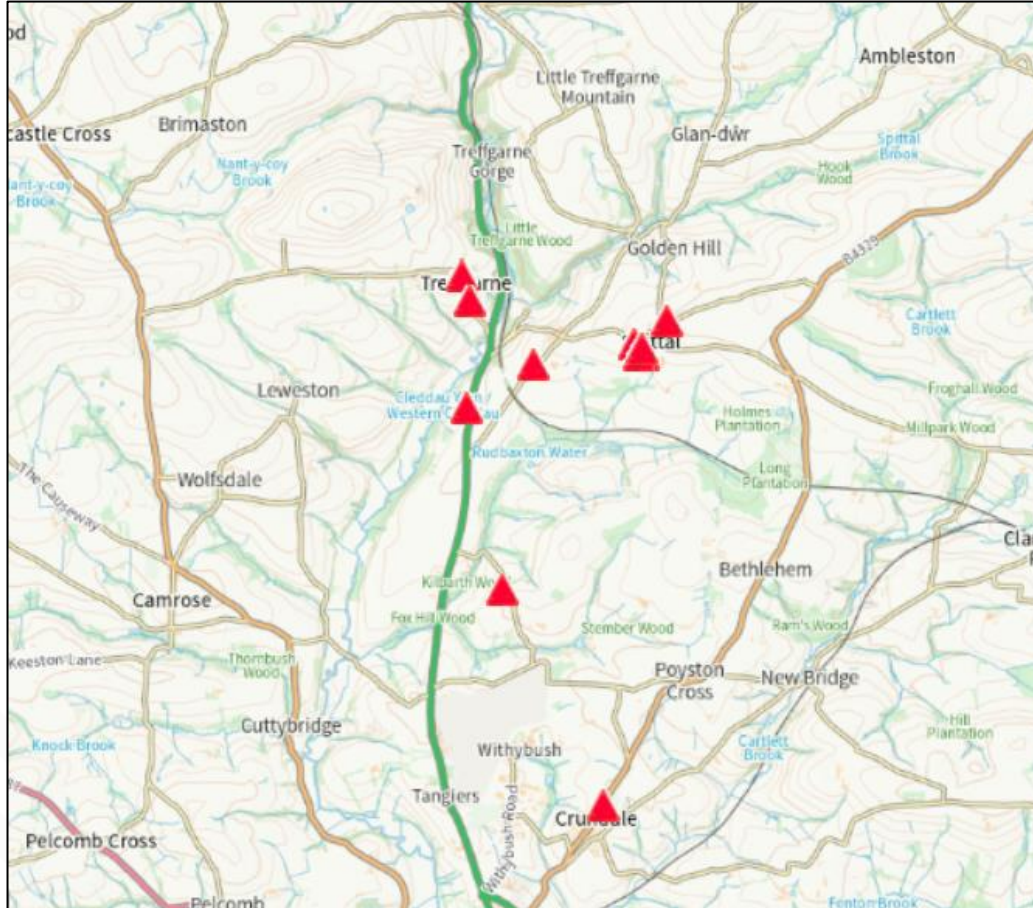


## Recent regulatory activity / Rheoleiddio diweddar

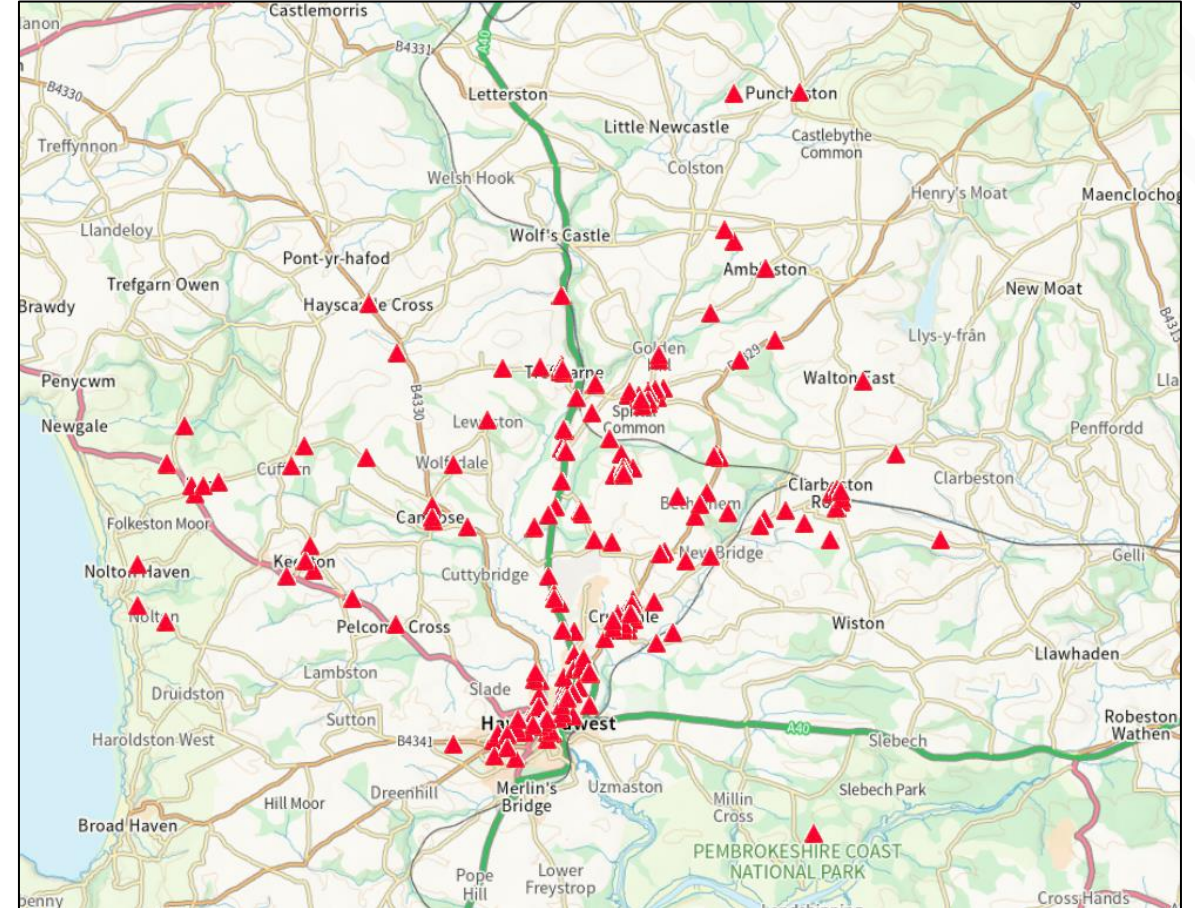
- 05 June 2023 – Cell 6 capping and gas infrastructure CQA proposals approved
- 31 July 2023 – Q2 monitoring returns compliance assessment
- 02 August 2024 – Cell 8 CQA construction proposals approved
- Late October – Notable increase in number of odour complaints
- 2 November 2023 – Site inspection, issue with Cell 8 identified
- 7 December 2023 – Site inspection
- 19 December 2023 - Site inspection with investigative gas survey
- 21 December 2023 - Regulation 36 EPR Notice issued
- 22 December 2023 - Q3 monitoring returns compliance assessment and Cell 8 final CQA construction approval
- 4 January 2024 – Site inspection
- 25 January 2024 – Site inspection



# Odour Complaints / Cwynion am Arogl



January 2023 – October 2023



November 2023 – January 2024

## Source of Landfill Gas / Ffynhonnell Nwy Tirlenwi



The source of the odour appears to be fugitive emissions of malodorous landfill gas from an uncapped section of the landfill.

Informed by an investigative gas survey undertaken by NRW on 19 December 2023.

The operator has proposed a scheme of capping and landfill gas well drilling in the first quarter of 2024 which should address the issue.



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## Timeline for mitigating odour / Amserlen ar gyfer Lliniaru'r Arogl

On 5 January 2024 in our online update we suggested that remedial actions will take 2-3 months:

- Based on a plan submitted to NRW by the landfill operator on 20 December 2023.
- Plan submitted by operator to address additional complexities around capping.

No additional timeframe since early January:

- Resolving the odour sits with the operator – our updates based on the information they provide to us.
- NRW have been cautious not to give false hope or inaccurate information.

On 11 January 2024 the operator informed us they believed they could complete works more quickly:

- NRW advised of the need to submit an alternative plan, with all necessary supporting information.
- NRW's primary aim – ensure shorter term gains do not cause longer term problems.

Revised plan submitted to NRW 22 January 2024:

- Plan under review by NRW.
- NRW are aware first steps have commenced.



## NRW: Forward focus / Edrych Ymlaen

### Odour mitigation and reduction:

- Monitoring progress of capping works.
- Having flexibility to respond to issues if they arise during this time.

### Investigation into permit non-compliances:

- This will take time.
- Request for impact statements from residents – w/c 12 February 2024.

### Ongoing compliance assessment:

- Targeted on recent areas of concern
- Plans for two gas surveys (February and March)

### Community engagement :

- Confirmed attendance on 28 February 2024.
- Proposed in person meeting March / April 2024.



Thank you for listening

Diolch am wrando

