Ein cyf/Our ref: CAS-300690-C1C0
Eich cyf/Your ref: P/2024/1151

Wrexham County Borough Council
The Guildhall
Wrexham
LL11 1AY

Dyddiad/Date: 13 March 2026

Annwyl Syr/Madam/Dear Sir/Madam,

BWRIAD/PROPOSAL: RHYDDHAU AMOD 7 (HALOGIAD) CANIATÂD CYNLLUNIO P/2021/0676 / DISCHARGE OF CONDITION 7 (CONTAMINATION) OF PLANNING PERMISSION P/2021/0676

LLEOLIAD/LOCATION: LAND NORTHEAST OF MAELOR WORKS, CROSS LANES, WREXHAM, LL13 0UW

Thank you for consulting Cyfoeth Naturiol Cymru (CNC)/Natural Resources Wales (NRW) about the additional information for the above, which we received on 13 February 2026.

Condition 7

We have reviewed the following additional information submitted in support of the application:

- Proposed Wrexham Solar Farm: Land Northeast of Maelor Works, Wrexham, Updated Controlled Waters Risk Assessment, reference R3585-R01-v2, dated 12/02/2026, Smith Grant LLP

We advise that the information included in the most recent submission does not provide sufficient detail regarding matters raised in our letter dated 2 February 2026. The following areas in particular have not been addressed adequately:

The soil data does not support the “natural baseline” rationalisation outlined in the report. The report states that the elevated soil lead levels reflects natural upstream alluvial background levels. Soil datasets do not support this as several soil samples show high or very high lead (lead) concentrations.

The concentrations exceed typical Welsh rural (~20–50 mg/kg) and urban (~100–300 mg/kg) background levels in Wales. They are also inconsistent with natural alluvial floodplain sediment lead levels and seem to appear as localised hotspots, not a geographically consistent mineralisation trend. Therefore, the soil dataset does not support the report’s conclusion of natural, upstream-derived lead.

Almost all of the samples are within the range 0.2–0.9 m below ground level (bgl). They are therefore representative of shallow soils, above or at the upper part of the seasonal

water-table fluctuation zone and not representative of deeper horizons that control groundwater chemistry. The critical zone (1.0–2.2 m bgl) remains unsampled, and importantly this is the range where piles will be driven, trenches intersect and where groundwater lead mobilisation actually happens. Therefore sampling at this depth is required to understand lead concentrations where mobilisation is most likely to occur.

The soil lead concentration and groundwater lead concentration is different, and the Environmental Quality Standards (EQS) exceedances have not been explained. Regardless of how soil lead levels compare to any background levels, the current soil datasets do not explain the dissolved lead being greater than the EQS in groundwater.

None of the processes that govern dissolved lead levels in groundwater are characterised by the shallow soil data that has been submitted so far, and we consider this to be a critical data gap.

The submitted groundwater data demonstrates that active mobilisation is taking place as multiple wells (DS05, DS08, DS09) show dissolved lead to be above EQS. These all occur in the vicinity of the watercourse and in wells with the shallowest groundwater levels. This pattern is inconsistent with a stable natural background level or by material naturally deposited by rivers.

Rising groundwater levels increase lead mobility, and significantly, the October readings (0.7–2.1 m bgl) do not represent winter peak levels. This means that the water table likely rises further which may have a bearing on interaction with lead-bearing horizons. The construction depths (trenching to 1.5 m, piling to 2.05 m bgl) will overlap this sensitive zone during wetter months and this is the zone where there are currently soil data gaps.

Although piling and trenching will not introduce new sources of lead, the proposed depth of installation coincides with the fluctuating groundwater zone. Here, elevated dissolved lead is already present and discharging to surface water, therefore affecting shallow groundwater in hydraulic continuity with the adjacent watercourse. In the absence of deeper soil characterisation and construction-phase controls, there remains an unquantified risk that subsurface disturbance could increase lead mobilisation and worsen controlled-waters impacts.

The report uses ‘compliant’ surface-water lead data to claim ‘no risk,’ but surface water cannot substitute for a controlled-waters assessment. Groundwater exceedances occur only metres from the river, leaving no attenuation distance; grab samples miss episodic or redox-driven pulses; and groundwater-surface-water interfaces often generate loadings not captured by limited sampling. Controlled-waters risk must follow a source-pathway-receptor approach, and any groundwater EQS exceedance already indicates failure regardless of downstream surface-water results.

The report’s reliance on surface water lead is therefore not considered acceptable under Water Framework Directive, Groundwater Protection: principles and practice (GP3), or Land Contamination Risk Management principles.

We therefore continue to advise, in line with our previous response dated 02 February 2026 (reference CAS-297379-S9Q9) that a proportionate site investigation be designed to assess the vertical soil profile for lead and relevant geochemical parameters, as the principal uncertainty and associated risk relate to the extent to which piling activities could exacerbate lead flux to groundwater due to construction-related disturbance arising from the installation of numerous piles across the site.

Based on the information submitted to date, we do not recommend the discharge of condition 7.

Your Environmental Health team may wish to consider the degree to which a detailed unexploded ordnance (UXO) assessment has been performed at the site in the past, given that hundreds of short piles will be required for supporting the solar panels, to ensure that there are no potential risks arising from encountering old, buried munitions.

Advice for the developer

We note the reference in section 3.1 of the report (R3585-R01-v2, dated 12/02/2026) to a previous application on adjacent land. That earlier case was assessed according to the information available at that time. Our previous advice for that application also stated that going forward all data collected should be complete, collated, and fully representative of potential impacts to the environment, including controlled waters. The level of environmental information required for decision-making has continued to develop over the last decade in terms of policy and guidance, and our advice reflects the current position as well as the evidence submitted for this application.

Should you require any further detailed advice in relation to the site investigation, sampling and analysis in relation to the current discharge of conditions application, this would need to be requested via our discretionary planning advice service. Further information regarding this can be found on our website - Natural Resources Wales / Our service to developers.

Other Matters

The advice in this letter relates to matters which are included on our consultation topics list. We do not rule out the potential for the proposed development to affect other environmental interests that are not included on this list.

We advise the applicant that, in addition to planning permission, it is their responsibility to ensure they secure all other permits/consents/licences relevant to their development. Please refer to our website for further details.

If you have any queries on the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully,

Rachael Burke

Cynghorydd - Cynllunio Datblygu/Advisor - Development Planning
Cyfoeth Naturiol Cymru/Natural Resources Wales

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Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi./Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.