Eng Assist

STRUCTURAL AND CIVIL ENGINEERING ASSISTANCE

Foul Drainage and Nutrient Impact Statement

Project:	Gwersyllt Cricket Club
Client:	Gwersyllt Cricket Club
Reference:	GCC-ENA-XX-XX-RP-S-0001
Date:	10th April 2026

DOCUMENT CONTROL SHEET

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Date: 10.04.26

Rev	Date	Description	Prepared	Checked	Approved
P01	10.04.26	First Issue	DRB	LAM	LAM

Document Issue Record

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1. Executive Summary

This report has been prepared in support of a planning application for a proposed cricket clubhouse development in Wrexham.

The site is currently served by the public sewer network operated by Welsh Water, and it is proposed that the development will continue to discharge foul flows via this existing connection. No private sewage treatment systems or direct discharges to the environment are proposed.

The development includes an increase in sanitary provision, resulting in a modest uplift in foul drainage demand associated with the operation of a community sports facility. The use of the building will be intermittent in nature, and the increase in wastewater generation is considered proportionate to the scale and function of the development.

The site lies within the catchment of the River Dee and Bala Lake Special Area of Conservation, and the report has therefore been prepared with regard to the requirements of local planning policy and guidance issued by Natural Resources Wales.

As all foul flows will be conveyed to and treated within the regulated public sewerage system, and no new direct discharge is proposed, it is concluded that the development will not have an adverse effect on the integrity of the SAC.

A pre-development enquiry will be submitted to Welsh Water to confirm capacity within the receiving sewerage network and wastewater treatment works. The outcome of this enquiry will be provided to the Local Planning Authority once available.

Overall, the proposed development is considered compliant with relevant planning policy and environmental guidance.

2. Contents

1. Executive Summary
2. Contents
3. Introduction
4. Existing Drainage Arrangements
5. Proposed Development
6. Proposed Foul Drainage Strategy
7. Environmental Designation
8. Nutrient Impact Consideration
9. Indicative Foul Flow and Population Equivalent Consideration
10. Compliance with Natural Resources Wales Guidance
11. Pre-Development Enquiry
12. Conclusion
13. Compliance Summary

3. Introduction

This report has been prepared to support a planning application for a proposed cricket clubhouse development in Wrexham.

The report addresses foul drainage arrangements and considers the potential impact of the development on the River Dee and Bala Lake Special Area of Conservation, in accordance with local planning policy and guidance issued by Natural Resources Wales.

4. Existing Drainage Arrangements

The existing cricket clubhouse is served by a foul drainage system discharging to the public sewer network operated by Welsh Water.
There are no private sewage treatment systems or septic tanks serving the site.

5. Proposed Development

The proposed development comprises the extension and reconfiguration of the existing cricket clubhouse, together with the provision of an additional covers facility located on the opposite side of the road.

The development includes:

- A total of 20 no. toilets across the site
- Associated kitchen and ancillary facilities within the main clubhouse

This represents an increase of 8 no. toilets over the existing provision.

The main clubhouse will remain connected to the existing public foul sewer, while the proposed covers facility will be served by a new connection to the existing public sewer network operated by Welsh Water.

6. Proposed Foul Drainage Strategy

All foul flows arising from the proposed development will:

- Discharge via internal drainage systems to the existing connection
- Continue to discharge to the public sewer network operated by Welsh Water
- Ultimately be treated at an off-site wastewater treatment works (WwTW)

The proposed covers facility located on the opposite side of the road will form part of the increased sanitary provision. This facility will be served by a new connection to the existing public sewer, ensuring that all foul flows are directed to the same mains network for treatment.

No changes to the point of connection for the main building or method of discharge are otherwise proposed.

7. Environmental Designation

The site lies within the catchment of the River Dee and Bala Lake Special Area of Conservation, which is designated for its ecological importance and is sensitive to increases in nutrient loading, particularly phosphorus.

In accordance with local planning policy (UDP Policy EC14), development will only be permitted where there is no adverse impact on the integrity of the SAC.

8. Nutrient Impact Consideration

In line with guidance issued by Natural Resources Wales for development within nutrient-sensitive SAC catchments:

- The proposed development does not introduce any private sewage treatment system
- All foul flows will be conveyed to and treated by the public sewerage system

The increase in foul flows associated with the development arises from:

- An uplift in sanitary provision (8 additional toilets)
- Associated clubhouse and kitchen usage

This increase is considered to be modest and proportionate to the scale and function of the development as a community sports facility. The use of the building will be intermittent in nature, primarily associated with match days, training sessions and clubhouse activities, rather than continuous full-time occupation.

Accordingly, the resulting increase in wastewater loading is considered to be limited in the context of the wider sewerage network and receiving treatment system.

9. Indicative Foul Flow and Population Equivalent Consideration

Population Equivalent (PE) is a measure of wastewater organic loading and is not directly derived from the number of sanitary fittings provided.

For the purposes of this planning-stage assessment:

- The increase in foul loading has been considered based on the nature and intensity of use of the clubhouse, rather than toilet numbers alone
- The additional sanitary provision supports the operational needs of the facility but does not directly equate to a proportional increase in permanent wastewater generation

Given the scale of the development and its intermittent usage profile, the uplift in foul drainage demand is considered to be relatively minor and consistent with typical community sports facilities connected to the public sewer network.

A detailed calculation of PE is not considered necessary at this stage and would not materially alter the conclusion that the increase in loading is modest.

10. Compliance with NRW Guidance

The proposal has been reviewed against the relevant sections of NRW guidance, including:

- “What does this mean for development proposals involving private sewage treatment systems?”
- “Can additional wastewater be discharged to existing private sewage treatment systems?”

These sections are not directly applicable, as the development:

- Does not rely on a private treatment system
- Does not result in direct discharge to the environment

Instead, foul flows are directed to the mains sewer, where treatment is controlled under statutory regulation.

11. Pre-Development Enquiry

A formal pre-development enquiry will be submitted to Welsh Water during the planning process to:

- Confirm the capacity of the receiving wastewater treatment works
- Verify that the public sewer network can accommodate the proposed increase in foul flows

Any response received will be provided to the Local Planning Authority in support of the application once available.

12. Conclusion

The proposed development:

- Maintains connection to the public sewer network
- Does not introduce any new direct discharge to the environment
- Will be served by infrastructure operated and regulated by Welsh Water

The increase in foul drainage demand is considered to be modest, reflecting the scale and intermittent use of the facility, and does not represent a significant increase in nutrient loading to the wider catchment.

Subject to confirmation of available capacity via the pre-development enquiry, it is concluded that the development will not have an adverse effect on the integrity of the River Dee and Bala Lake Special Area of Conservation.

The proposal is therefore considered compliant with UDP Policy EC14 and relevant Natural Resources Wales guidance.

13. Compliance Summary

UDP Policy EC14

- Development is located within the River Dee and Bala Lake Special Area of Conservation catchment
- No direct discharge to ground or watercourse is proposed
- All foul flows discharge to the public sewer network
- Increase in wastewater is modest and proportionate to the development
- No adverse impact on SAC integrity is anticipated

Natural Resources Wales Guidance

- Development does not involve a private sewage treatment system
- Relevant NRW sections on private systems are not applicable
- Wastewater is treated via a regulated public treatment works
- Increase in loading is limited and managed within existing infrastructure
- Capacity to be confirmed via pre-development enquiry with Welsh Water
- Proposal is not expected to increase phosphorus loading in a way that affects the SAC