

CONVERSION OF REDUNDANT BARN INTO 1 DWELLING TYDDYN DEDWYDD, RHOSTYLLLEN

NRW Ref: CAS-138223-W6V9

Planning Ref: P2021/0060

Response to NRW comments dated 10/03/2021

The original plan to drain the site was to discharge to ground via infiltration. Surface water flows would be directed to soakaways and the effluent discharge from a septic tank would be discharged into a drainage field.

Ground investigation has determined the site is underlain with cohesive material – **CLAY** and will therefore not be suitable for infiltration techniques for disposal of surface water or treated foul effluent flows.

We will therefore need to discharge surface water and foul effluent flows to the local watercourse. Please Refer to Drg SK/01 for Drainage Strategy. As we are now discharging to a watercourse, we understand a private wastewater treatment system will be required as a septic tank is not acceptable.

We note the site is within the River Dee and Bala Lake Special Area of Conservation (SAC) and will therefore need to consider potential increase in the amount of phosphate within the SAC as a result of the single dwelling development. We are currently exploring products and potential green solutions as mitigation measures for the potential increase in phosphate levels.

The **Graf** advanced **One2Clean & Klaro** systems can be set up for phosphate removal. Test certificates show an average effluent value of 0.4 mg/l TP (=total phosphorus) and treatment efficiency 95% for both systems tested with +P dosing unit.

We understand the incorporation of a small wetland or tree planting may also provide sufficient levels of mitigation and are currently seeking further advice from specialists. This option will be explored in the first instance providing sufficient land is available. Advice will be sought from an Ecologist

Andy Jones

Drainage Engineer