

Natural Resources Wales Permitting decisions

Refusal

We have decided to refuse the variation of the environmental permit for discharge of effluent from Maenan Abbey Caravan Park operated by Thornley Leisure (Maenan) Limited.

The applicant is Thornley Leisure (Maenan) Limited.

The proposed facility location is Maenan Abbey Caravan Park, Maenan, Llanrwst, LL26 0UL

The site has an existing permit that has been in place since 1967 (Ref. CG00702-01) ("the permit"). The permit regulates a discharge from the caravan park to surface water at Maenan Abbey Stream which is approximately situated at national grid reference ("NGR") SH 78729 65746. (No NGR is stated on the original permit but a detailed description is provided.)

In reality, the site has been discharging at NGR SH 78809 65600 certainly since transfer of the permit to Thornley Leisure (Maenan) Ltd in 1996 and probably since the date the permit was issued in 1967. Accordingly, the operator has been non-compliant with the permit since taking transfer in 1996, and it is likely the discharge activity from the site has been carried out by others in a non-compliant manner since issue in 1967.

The application received is to vary the permitted discharge point in the permit for Maenan Abbey Caravan Park to the location at NGR SH 78809 65600 i.e. the discharge point currently being used by the operator. The discharge activity consists of treated sewage effluent from the caravan park. The treatment system is a package treatment plant. The proposed receiving environment is a seasonally dry ditch with no flow.

We have taken into account all relevant considerations and legal requirements, and based on all the evidence received, we have decided to refuse the variation for Maenan Abbey Caravan Park operated by Thornley Leisure (Maenan) Limited.

Purpose of this document

This decision document:

- explains how the application has been determined
- provides a record of the decision-making process
- shows how all relevant factors have been taken into account.

Structure of this document

- Annex 1 the Key Issues and reasons for refusal
- Annex 2 consultation responses

Annex 1: Key Issues and reasons for refusal

Determination Decision

We have decided to refuse the application to Vary the permit for Maenan Abbey Caravan Park (CG0070201). The variation requested is to change the permitted discharge point from NGR SH 78729 65746 to NGR SH 78809 65600. The treatment plant has, it appears, discharged to NGR SH 78809 65600 since the original permit was issued in 1967. The proposed variation is to vary the permit to reflect the discharge activity that has taken place since issue in 1967. The decision to refuse the variation is based on our assessment of the environmental impact and the requirements of the Groundwater Directive, Water Framework Directive and Environmental Permitting Regulations not being met.

How we reached our decision

Unsuitability of proposed discharge point:

In our assessment, it is not determinative of the application that the operator has been carrying out the discharge activity under the permit at the proposed discharge point since taking transfer of the permit in 1996. We have had regard to the fact that the operator took the permit and, at all material times, has carried out the discharge activity at the proposed discharge point. We have also had regard to the fact that the operator has (in 2019) installed a new sewage treatment system to discharge at this location. In our assessment, however, these matters are not determinative and must be balanced against the other relevant considerations discussed below.

An NRW Senior Environment Officer visited the site on 19/09/2019. Upon examination, it was found that the ditch was not flowing despite a continual input from the package treatment plant. At the time of the visit the discharge was draining to ground and there were clear signs of pollution. The receiving ditch was stagnant and algae was visible. Photographs of the same were taken on 19/09/2019 and have been considered. We therefore concluded that completing a water quality model for the discharge to surface water would not be a representative risk assessment.

The Senior Environment Officer who attended the site on 19/09/2019 observed:

'The ditch was not flowing at the time of my visit even though there was a constant discharge from the package plant, this was pooling and going to ground. The ditch was then dry for a section and then there was a patch of stagnant water in the middle of the ditch. I suspect that when the water table is low the ditch is dry and looking at the aspect of the field, I am not sure that it would flow in its current state. Within the stagnant pool of water there was algae, this was a small population and I was unable to collect a sample to confirm the type, but we suspect it is batrachospermum algae. Algae is caused naturally when

there is a build-up of nutrients, the weather is warm, due to the lack of flow within the ditch this algae has then grown.'

Whilst the variation application is stated to be a variation to discharge to surface water, this is not supported by the facts.

The gradient at the proposed discharge point currently in use at the site is flat and our considered view is that it is likely that discharge only flows when the water table is extremely high.

As the effluent principally originates from occupied units within the caravan park, the flows from the treatment plant will be highest over summer months due to increased visitor numbers. During these times the water table will likely be at its lowest. Therefore, the likely times of 'no flow' in the ditch will correspond with the highest flows from the package treatment plant. In our assessment, this is likely to increase the risk of pollution within the dry ditch.

NRW Permitting Service requested hydrology data for the proposed discharge point. No 'meaningful estimate' could be obtained for the flow in the receiving ditch. This meant we were not able to produce a water quality model for the proposed variation to assess the level of deterioration in the receiving ditch. The fact an estimate cannot be obtained highlights the lack of flow within the ditch.

As the discharge at the proposed discharge point was found to be draining to ground, we consulted internal Geoscience specialists. NRW has a duty to ensure hazardous substances are prevented from being released into groundwater and the input of non-hazardous pollutants is limited so as to not cause pollution. The risk assessment submitted by the application (reference supporting Document C2.5 Environmental Risk Assessment) is not a hydrogeological risk assessment.

The advice from NRW's Geoscience specialist outlined that recent changes in legislation require the operator to limit the direct discharge of non-hazardous pollutants to groundwater, furthermore an appropriate infiltration system **must** be in place to ensure the discharge receives a sufficient level of treatment before discharge to groundwater. The proposal in its current state does not meet these requirements, directly contravening the Groundwater Directive.

In our determination, for the above reasons the proposed discharge point is not an environmentally sustainable and not in accordance with the requirements of the Environmental Permitting Regulations.

Suitability of current permitted discharge point

We have reviewed and assessed the suitability of the permitted discharge point in the light of the particular circumstances by which the permitted discharge point has not in fact been used for the discharge activity; and because the application is to vary the permit to substitute the proposed discharge point.

The current permitted discharge point is situated at NGR SH 78729 65746. The permitted discharge point is to Maenan Stream, situated north of the Caravan Park. Maenan Stream is a significant watercourse with constant flow. Hydrology data requested by NRW Permitting Service shows that the mean flow at the permitted discharge point is 14515m³/day (168l/s), there is still sufficient flow in the watercourse during extended low flow periods, the Q95 (5% exceedance flow) is 1468 m³/day (17l/s). This flow in relation to the 17.5m³/day maximum discharge volume demonstrates that there is substantial dilution within the receiving watercourse.

In our determination, it is therefore clear that the permitted discharge point to Maenan Abbey Stream remains environmentally sustainable and in accordance with the requirements of the Environmental Permitting Regulations. In consideration with our determination, variation of the the permit to substitute discharge activity at the proposed discharge point is not justified..

Water Quality Modelling has also been completed to demonstrate the effect of the discharge on the receiving watercourse. The model demonstrates there will be <1% Deterioration in the phyio-chemical parameters as defined under the Water Framework Directive (Ammonia and Biochemical Oxygen Demand).

Legal Framework

The Environmental Permitting (England and Wales) Regulations 2016 ("Environmental Permitting Regulations") state that:

'For the purposes of implementing the Water Framework Directive and the Groundwater Directive, the regulator must, in exercising its relevant functions, take all necessary measures—

- (a) to prevent the input of any hazardous substance to groundwater, and
- (b) to limit the input of non-hazardous pollutants to groundwater so as to ensure that such inputs do not cause pollution of groundwater.'

A non-hazardous pollutant is defined as any pollutant other than a hazardous substance which is inclusive of ammonia and nitrates, which are found in sewage.

Taking into consideration the site visit undertaken by the Senior Environment Officer (19/09/2019) and the consultation responses received from NRW's Geosciences officers, the variation proposal **does not** limit the input of non-hazardous pollutants to groundwater. The Environmental Permitting Regulations also state that a permit may not be granted without examination (risk assessment) of the hydrogeological conditions of the discharge area, the possible purifying powers of the soil and subsoil and also the risk of pollution and alteration of the quality of the groundwater from the discharge, this information has not been supplied.

Our assessment is that the proposed variation would therefore contravene the:

- The Water Framework Directive
- Groundwater Directive
- Environmental Permitting Regulations

The current permitted water discharge activity should therefore, in our determination, be favourable given the suitability of the current permitted discharge point.

Other Relevant Issues

- There are no physical land access issues to prevent compliance with the current permit conditions. In a site meeting on 06/08/2019, it was agreed with the landowner that Thornley Leisure (Meanan) Ltd could lay a new discharge pipe across the land to secure compliance with the current permit once a claim has been settled. This claim is a civil issue and is not relevant to the variation determination
- There is an email from a veterinary surgeon confirming that the likely cause of ovine abortions in the adjacent field result from E.Coli. NRW has not determined the variation application with regard to these matters.
- There have been two recorded contraventions of the permitted limits for suspended solids from samples taken by NRW officers from within the ditch currently being used as a discharge point. As these contraventions were samples taken on 01.08.2017 and 03.10.2017 respectively, which pre-dates the replacement of the treatment plant, NRW has not had regard to these matters in its determination the application.

Annex 2: web publicising responses

Response received from
Member of the public
Brief summary of issues raised
<p>'Dear Sirs,</p> <p>RE: Thronley Leisure Parks Ltd- application number PAN-007116</p> <p>It is not advisable to discharge contaminated water into a dry ditch.</p> <p>All involved are aware of the problems that have been experienced and if the discharge is allowed to continue further problems will arise.</p> <p>Kind regards,'</p>
Summary of actions taken or show how this has been covered
No additional actions taken from this consultation response as it did not present any new information, the unsuitability of the discharge point was previously outlined by the Senior Environment Officer.