Application for an environmental permit: Part B6 - new bespoke water discharge activity and groundwater (point source) activity

About you

Please give details of the individual, or where relevant for groups or organisations of individuals, the main representative.

Title: Mr

First name: Peter

Last name: Garden

Please provide details below.

Are you applying as an individual, an organisation or group of individuals' (for example, a partnership), a company (this includes Limited Liability Partnerships) or a public body?

A registered company or other corporate body

Registered company or other corporate body

Please provide details below

Company name	Gwynant Ltd
Company registration number	02260310
Date of registration (DD/MM/YYYY)	10/05/1988

Contact name for the company

Title	Mr
First name	Peter
Last name	Garden
Email address	peterg@gwynant.com

Your address

For companies this must be the address on record at Companies House.

Address	Unit F1, Intec Ffordd y Parc Parc Menai, Bangor -
Postcode	LL57 4FG
Telephone	07487571072
Email address	peterg@gwynant.com

1 Pre-application discussions

Did you have pre-applications discussions with Natural Resources Wales about this activity?

Yes

Pre-application discussions

Give us the case reference or details of the pre-application advice you received. We will then be able to refer back to the information you've already given us, which will help us to determine your application.

Phone discussions with Simon Roberts

Have you changed your proposal since you had pre-application discussions with us?

No

Where will you be discharging?

Please complete

Site name	Llyn Gwynant Campsite
Address	Nantgwynant Caernarfon
Postcode	LL55 4NW

Please provide the 12 character national grid reference of the location of your septic tank / sewage treatment plant. This consists of two letters followed by 10 numbers (for example AB 12345 67890)

To find out the 12 character grid reference, you can search on the UK grid reference finder website: http://www.gridreferencefinder.com/

SH 65039 52411

About the effluent

Give a brief description of the effluent discharge you want a permit for, for example, treated domestic sewage effluent.

Treated domestic sewage effluent from campsite that has a site license for 460 pitches. Most of these are tent pitches with a maximum of 15 campervans/caravans.

Give this effluent a unique name
This name will be used throughout the application and may be used in the permit to identify this effluent. If you have more than one effluent you must ensure that each name you use is distinct. For example, package sewage treatment plant effluent, septic tank effluent, cooling water, site drainage and so on.

Campsite treated effluent

Is this a release from a dam, weir or sluice ('reservoir release') under Schedule 21 of the EPR meaning of water discharge activity?

No

Tell us the effluent type:

You must fill in a separate copy of this form for each type of effluent you plan to discharge.

Domestic sewage – 20m^3 a day or more discharged to surface water or 15m^3 a day or more discharged to groundwater. Any discharge to groundwater via a borehole, well or other deep structure.

Domestic sewage: How long will you need to discharge?

What date do you want the permit for this effluent to start?

You cannot discharge your effluent prior to this start date on your permit. This is the date that your annual subsistence charges will start, even if you have not started to discharge.

* 01/03/2023

Is the discharge time limited?

No

For seasonal discharges which only occur for part of the year, tells us when the discharge will take place. Where a discharge will continue at a significantly lower rate over a period you should complete this question and also send in details of the seasonal variation. For example, campsites which are closed in winter but have a residual throughput from residential properties on site all year.

Will the discharge take place all year?

Yes

Please give details below, of the months when you will make the discharge
15 March to 31 October for campsite effluent, small residual throughput in winter when campsite is closed.

Will the discharge take place on more than six days in any year?

If you answer 'no' you must be able to comply with the requirement to discharge on six days or fewer in any year as this will be a permit condition. It would apply only to batch processes such as the emptying of fish rearing ponds or planned shutdowns of plant or equipment.

Yes

Domestic sewage: Could your discharge be made to the foul sewer?

How far away is the nearest foul sewer from the boundary of the premises (in metres)?

You will need to check this with your sewerage undertaker (usually your local water company) and you may also need to check if it is possible to connect to a private foul sewer. Measure the shortest distance between the boundary of premises served by the sewage treatment facility and the nearest foul sewer and/or private sewer.

2500m

To assess if it is reasonable to discharge your effluent to foul sewer:

Discharges from domestic properties
Multiply the number of properties served by the sewage treatment system by 30 metres.

	Number of domestic properties served by the sewage treatment system	Multiplied by 30 metres
Domestic properties	0	0

Discharges from all other premises, for example a pub, cafe, restaurant or office
Divide the volume of the discharge (in cubic metres) by 0.75 and then multiply this figure by 30 metres

	Volume of discharge (in cubic metres)	Divided by 0.75	Multiplied by 30 metres
All other premises	50	66.67	2000

Domestic sewage: How much do you want to discharge?

What is the maximum volume of effluent you will discharge in a day (in cubic metres)?

This is the maximum volume that will be discharged in any day. You must ensure that you choose a volume you can always comply with.

For guidance on calculating the volume use the Code of Practice: 'Flows and Loads 4 – Sizing Criteria, Treatment Capacity for Small Wastewater Treatment Systems which is published by British Water.

50m3

Tell us how you have calculated this figure in the box below, or upload a copy of your workings in the next question.

Monitoring of final treated discharge volumes over 10 years. Minimum of 1m3 in winter and maximum 50m3 per day on bank holiday weekends.

See Section 3.2 of Groundwater Risk Assessment document for details on discharge volumes (attached as part of this application)

Domestic sewage: How will the effluent be treated?

Do you treat your effluent?

Yes

Please fill in the table below for each stage of the treatments carried out on your effluent in the order in which they are carried out. . If you prefer, you can upload an overall design for the whole treatment process below

	Code number
First treatment	BS Primary
Second treatment	31 Activated sludge
Third treatment	30 Reedbed
Fourth treatment	other - filtration UV

Final effluent discharge quality

You must provide details of the final effluent discharge quality that the overall treatment system is designed to achieve. This should be after all the stages of treatment you have listed in the table above. For discharges of treated domestic sewage effluent this must include biochemical oxygen demand, suspended solids and ammonia. For trade effluent discharges, the substances should reflect the substances that are likely to be present in the final effluent discharge.

Please upload this and any supporting documents here.

- File: Supporting document - ground water discharge.pdf - Download

Domestic sewage: What will be in the effluent?

Are any ‘specific substances’ added to or present in the effluent as a result of the activities on the site?

You may add chemicals to the effluent during the treatment process; for example, iron salts to remove phosphate. Or you may have substances present in your effluent as a result of activities on your site; for example, chromium can be present in effluents from concrete batching plants.

No

Are there any other harmful or hazardous substances in your effluent not mentioned in the environmental risk assessment guidance?

The list in the environmental risk assessment guidance is not exhaustive and if you accept, add or detect any other harmful substance (including hazardous substances or relevant non-hazardous pollutants as described above) you will need to tell us.

No

Domestic sewage: Monitoring arrangements

Please provide the 12 character national grid reference of the final effluent sample point.

This is the sample point used to assess compliance with any water quality emission limits on your permit. You must ensure that it allows a representative sample of the discharge to be obtained. You must also ensure that all constituents of the discharge pass through the sampling point at all times. The sample point can be where the effluent meets the receiving environment only in cases where no other effluent is added before this point. You must provide a permanent means of access to monitoring points.

A 12 character national grid reference consists of two letters followed by 10 numbers (for example AB 12345 67890). To find out the 12 character grid reference, you can search on the UK grid reference finder website: gridreferencefinder.com

SH 65019 52463

Do you have a UV disinfection efficacy monitoring point?

This type of monitoring point is only required for discharges that undergo some form of disinfection. For example, ozone or ultraviolet disinfection, membrane filtration etc.

Yes

If yes, provide the 12 digit national grid reference for the pre and post UV monitoring locations:

Pre UV treatment	SH 65019 52463
Post UV treatment	SH 65019 52463

What is the 12 character national grid reference of the flow monitoring point?

A 12 character national grid reference consists of two letters followed by 10 numbers (for example AB 12345 67890). To find out the 12 character grid reference, you can search on the UK grid reference finder website gridreferencefinder.com

SH 65019 52463

Does the flow monitor have an MCERTS certificate?

No

Your management systems

What management system will you provide for your regulated facility?

Own management system

I confirm that I have read the guidance and that my management system will meet NRW requirements.

Yes

You must send a suitable summary of your management system with your application – that includes enough information to allow us to assess whether your full system meets the standards set out in our guidance.

- File: Llyn Gwynant Campsite Wastewater Treatment Plant Management Plan v4 Final.pdf - Download

Where will the effluent discharge to?

Where will the effluent discharge to?

Into land (for example, through a drainage system)

Is this effluent discharged through more than one outlet?

Effluents are usually discharged to one location in one receiving environment.
If your effluent will be discharged to more than one location within the same receiving environment, for example, two different discharge points on a non-tidal river, you can provide details of every discharge point on the next page.

If your effluent discharges to more than one location in a different receiving environment, for example, into land and to a non-tidal river you will need to select both receiving environments above and complete the relevant sections on the following pages.

No

Are there any other factors we need to take into account as part of your application?

Yes

If yes, please give details:
Discharge to ground is through a pumped sub-surface drip line system consisting of 50 discharge lines 100 metres long each, in 5 zones. The drip lines are pressure compensated emitters at 300mm spacing buried at a depth of 200mm. These drippiness are Netafim Bioline rated at 1.6l/h per dripper. Discharge to zones is controlled by an irrigation controller and solenoid valves that cycle through the 5 different zones at 24 hour intervals. Total area of ground discharge is 0.5Ha. Adjacent to the main discharge area ia smaller contingency disposal field that can be used when the main field needs to be taken off-line for maintenance.

See details of final effluent disposal in "Llyn Gwynant Campsite Wastewater Treatment Plant Management Plan" document attached to this application

Discharges into land

Give the discharge point a unique name, for example, ‘Outlet 1’ (you must use this name to identify the discharge point on the plan) and the national grid reference

	Discharge point name	National grid reference	Name of effluent discharged through this discharge point
1	Discharge field 1	SH652525	Campsite treated effluent
2	Discharge field 2	SH651524	Campsite treated effluent
3	-	-	-
4	-	-	-
5	-	-	-

Is your infiltration system new or existing?

Before 1 April 2010 (existing)

When was it built?

10/07/2004

Is your infiltration system designed and built to British Standard 6297:2007 + A1:2008?

An infiltration system is a restricted and well-defined area of ground designed to allow liquid to drain into the surrounding soil. It typically includes a system of sub surface perforated pipe. New infiltration systems must be built to British Standard 6297:2007 + A1:2008. This ensures that the size of the drainage field is appropriate to the rate of discharge and the infiltration capacity of the ground, minimising the risk of pollution to groundwater.

No

On what date did you carry out a percolation test and dig trial holes in line with British Standard 6297:2007 + A1:2008?

* 07/05/2023

Please upload a site plan showing the location of the trial puts used for the percolation test.

- File: Groundwater site plan V2.pdf - Download

What is your percolation value (Vp) result (seconds per millimetre)?

Drainage field disposals should only be used when percolation tests indicate average values of Vp between 15 and 100 and the preliminary assessment of the trial hole tests has been favourable. The minimum value of 15 ensures that untreated effluent cannot percolate too rapidly into groundwater. Where Vp is above the limit of 100 effective treatment is unlikely to take place in a drainage field as there will be inefficient soakage in this location which may lead to sewage ponding on the surface.

26.7

You must show in the table below how you worked out the percolation value.

	Trial 1	Trial 2	Trial 3	Average
Hole 1	23.8	30.2	35.8	29.9
Hole 2	26.4	32.8	31.2	30.1
Hole 3	15.1	20.9	24.7	20.2

For sewage treatment plants

	p	x Vp	x 0.20 (in square metres)
For sewage treatment plants	800	26.7	4272

Is any part of your infiltration system within 50 metres of a well, spring or borehole?

No

Is the well spring or borehole you have identified used to supply water?
No

Is any part of your infiltration system within 10 metres of a watercourse?
No

Environmental risk assessment and modelling You must carry out a groundwater quantitative risk assessment following the guidance in 'Groundwater risk assessment for your environmental permit'. We cannot undertake assessments on your behalf, but we can offer advice as to what needs to be done through our pre-application advice service. If you do not have the skills to do this yourself, then you will need to engage a consultant to advise you and to undertake the assessment. This risk assessment should be based on our guidance 'Groundwater risk assessment for your environmental permit' available from Gov.UK and 'H1 Risk Assessment Horizontal Guidance Note H1 Annex J – Groundwater If you're applying to discharge as part of a groundwater remediation schemes you must send us a site-specific remediation strategy which has been agreed with the Natural Resources Wales Geoscience Team. This should include: Conceptual model; Quantitative site-specific risk assessment; Site-specific remedial targets; Details of the contaminant concentrations contained within the proposed discharge Upload your groundwater risk assessment
• File: Groundwater Risk Assessment_V1_Final.pdf - Download

Site plan

You must provide a site plan for your proposed discharge which is A4 in size or larger, and at 1:10,00 scale or larger. On your plan you must show: which direction North is; the premises discharging effluent; the site in relation to the local area; any watercourses, wells, springs or boreholes on the site (or within 50 metres); the location of the wastewater treatment system all outlets where effluent will be discharged into the receiving environment; where samples of effluent can be taken automatically or manually (if required); where flow or quality will be measured (if required). You may submit more than one plan if necessary. Please upload your plan(s) below
• File: Groundwater site plan V2.pdf - Download • File: Campsite Drainage Figure.pdf - Download

How do you want to pay?

Who can we talk to you about your billing or invoice?
Same as application contact

If a new contact, please provide details:	
Title	-
First name	Mark
Last name	Wallis
Address	Llyn Gwynant Campsite
Postcode	LL55 4NW
Telephone	07487 228017
Email address	markw@gwynant.com

How do you want to pay for your application fee?
Electronic transfer (e.g. BACS)

How we collect your personal data

I have read and understood this information
Yes

Freedom of Information

I have read and understood this information
Yes

Declaration

If you knowingly or recklessly make a statement which is false or misleading to help you get an environmental permit (for yourself or another person), you are committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

I declare that the information in this application is true to the best of my knowledge and belief. I understand that this application may be refused or approval withdrawn if I give false or incomplete information.

I understand that if I knowingly or recklessly make a false or misleading statement:
I may be prosecuted; and if convicted, I may have to pay a fine and/or go to prison.

By signing below, you are confirming that you understand and agree with the declaration above.

Title	Mr
First name	Peter
Last name	Garden
On behalf of (if applicable)	Gwynant Ltd
Date (DD/MM/YYYY)	18/05/2023