

Form WRD: Application for a new abstraction licence or a technical variation to an abstraction licence

Application type

Reference number (The number you generated in form WRA). Example:
WRNATURALRESOURCESWALES1101

WRTheValeResort0704

Are there any applications currently being assessed by us that are linked to this application?

Yes

Is the proposed abstraction going to be aggregated with another existing abstraction?

No

Linked applications

Please confirm how this application is linked to the other application(s)

Example: this application could be one of multiple abstractions and/or impoundment licence applications at the same site. The proposal could involve water rights trading, or this application could be linked to another application for a previously exempt activity.

WRA Completed and Issued by Hydrogeo on behalf of The Vale Resort
Works completed in accordance with a Groundwater Investigation Consent and in addition ongoing discussions with NRW Specialist Advisor Hydrogeology - Kay Roberts

Linked application numbers

WRTheValeResort0704

PPN00248 (Groundwater Investigation Consent Reference)

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Are any applications, at the same site; being assessed by the Environment Agency?

No

Tell us when you want your abstraction licence to end: [DD/MM/YY]

24/10/2043

If you require a shorter or longer duration licence, please provide details and your justification

Duration of 18 years is required to support ongoing resort leisure requirements

Abstraction details

Abstraction location name/reference

Shooting Range (N.G.R: 304408, 179099) & Lake Borehole (N.G.R: 304489, 178694).

Abstraction point type

Area

National Grid Reference

Shooting Range 304408, 179099 - Lake 304489, 178694

Do you have any further points of abstraction?

No

Means of abstraction

Provide full details of the equipment you propose to use to abstract water, such as maximum pump capacity and any relevant dimensions, e.g. pipe diameter. For groundwater abstractions, include details about the borehole (depth and diameter) and details of screening and lining.

Details of the exact pump specification are to be confirmed once the abstraction rate have been approved by NRW. It is likely that a 240v electric submersible borehole pump will be utilised capable of pumping at desired rates. The borehole will operate on a float switch system and is unlikely to ever run 24 / 7 as water will be pumped to store and be used across the leisure resort
Requested rates detailed in the Pump Test Report and HIA as submitted with the WRA and attached for your information.

Based on pump testing we are requesting 65 - 70m³ / day from the abstraction boreholes details as set out in the HIA and subject to discussion with NRW Hydrogeologist. Borehole installation details are presented within the report confirming the depth and installation (pages 7 and 8 of the report)

If necessary, continue on a separate sheet and upload below.

- File: HYG1279 R 240605 Vale Resort Pumping Test Report.pdf - [Download](#)

Abstraction quantities

Abstraction location name/reference

Shooting Range (N.G.R: 304408, 179099) & Lake Borehole (N.G.R: 304489, 178694)

What purpose will the water be used for?

Sports Field Irrigation

Period of abstraction

Will it be all year?

Yes

Maximum quantities (cubic metres)

Annual 25550

Daily 70

Hourly 2.92

Peak abstraction rate (in litres per second)

0.81

Number of hours of abstraction per day

24

Add quantities for another location?

No

Calculations and supporting information

Use this section to show us how you have calculated the amount of water you require. This should include details of your operational regime (for example, number of hours and days you intend to abstract, number of units produced or area to be irrigated). We use this information to determine if the volumes you propose to abstract are appropriate for the purpose. Depending which industry you are in, you may need to provide additional information below.

If your proposal involves the provision of a residual flow via a notch or orifice, provide information on how this is being calculated. This should include details of the equation being used.

The Vale Resort require the licensing of 2 no. recently installed boreholes, under a single abstraction license. The boreholes are located at the Shooting Range (N.G.R: 304408, 179099) & Lake Borehole (N.G.R: 304489, 178694).

The WR C and supporting information presented the proposed usage of water across the site detail on this form confirmed that:

Vale Hotel, on behalf of the Welsh Rugby Union, the Football Association of Wales and Cardiff Football Club, have installed and are installing semi-artificial hybrid grass/plastic/nylon training pitches, brand-named Desso and Siss.

The total area for irrigation is projected to be 7 Ha (70,000 m³).

The irrigation requirement is 35 mm (0.035 m) per week – this is slightly higher than standard grass pitches as the water is used for purposes other than to fulfil evapotranspiration, e.g. pitch condition and player well-being.

During the watering period this gives a demand of 2,450 m³/week (350 m³/d). Adding c. 15% contingency gives a demand of 400 m³/d.

An application has been submitted to abstract 100 m³/d from the Ambulance Station Catch-pit (licence in determination phase with NRW, January 2020).

It is proposed to fulfil the remaining 300 m³/d of demand through a combination of:

1. A surface water abstraction from Hensol Lake (up to 300 m³/d, the subject of discussions with NRW, January 2020), and/or.
2. Two new dedicated boreholes, with a combined abstraction rate of up to 300 m³/d, the subject of this application.

Pitch irrigation (and abstraction) is required between 1st March and 30th November each year, with the highest demands during the warmer months.

Investigation of the groundwater source has been progressed under GIC Reference: PPN00428, and includes pump testing and monitoring as presented in the Hydrogeo Pump Test Report attached to the application.

Both groundwater abstractions are proposed to be used to support the existing sports pitch and golf course irrigation with a daily rate from both of the boreholes totaling 65 - 70 m³ /day.

The GIC was progressed by JH Groundwater Ltd and boreholes advanced and installed by APEX Drilling on behalf of the Vale. Correspondence (05/06/24) between Julian Hatherall JH and Kay Roberts (NRW) is appended to this application explaining the extra 50m drilled depth of 100 150m

Means of measurement

State how you intend to measure the quantity of water you abstract. You do not need to do this for a temporary or transfer licence.

Meter

Water efficiency

Provide details of what measures you provide or intend to implement, to ensure efficient use of water. This could include water storage, re-use or recirculation, monitoring and checking for leaks, undertaking water audits or other industry specific good practice.

Water will be used across the artificial sports pitches as required. Every effort will be made to ensure the efficient use of water and where at all possible within future designs allow re-use - recirculation of water utilised on the sport pitches.

Other abstractors / water users

Provide details of nearby abstractors or users of water who could be affected by your proposal. This should include deregulated users (exempt activities or abstractions < 20 cubic metres per day), anglers and canoeists. Your local authority's environmental health will hold details of exempt domestic abstractors.

Details of the Pump Test and HIA attached to this WR D have reviewed the potential impacts to surface water (Hensol Lake), shallow and also deep abstracted groundwater. No impacts were observed during the GIC Pump Tests

Planning application

Have you sought advice on your planning application?

No

Declaration

By signing below, you are declaring that, to the best of your knowledge; the information given in this form, on any map and in any supporting or additional information; is true.

Signed M Willis
Print name Michael Willis
position Director Hydrogeo

If an agent is to sign on behalf of the Licence Holder, a letter of authorisation from the Licence Holder is required.

- File: Letter of Authorisation (letter headed).pdf - [Download](#)

Date

* 24/10/2025

Submit your application

Enter your email address to get a copy of your application

mike@hydrogeo.co.uk