

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

WRKimberleyhydroB2910

For hydropower abstractions, specify the capacity (in kilowatts) of your scheme.

25kW or less

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?

Yes (Please let us know the licence it will be aggregated with)
The variation of licence WA/058/0073/003

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.

The existing abstraction licence (WA/058/0073/003) needs to be varied to add a purpose of 'transfer of water' in addition to 'power production'. The water will be transferred to the pond at National Grid Reference SN 80084 05528. This has been done in parallel applications WRA and WRD reference WRKimberleyhydro2910.

This full abstraction licence application is to abstract the water transferred into the pond in the above licence by means of the apparatus detailed in fig 2 at Grid Reference SN 80084 05528 into the penstock for the purpose of power production (Hydroelectric power generation). The system will return all water abstracted to an unnamed tributary of the River Dulais at National Grid Reference SN 79635 05534.

Linked application numbers

WRKimberleyhydro2910 and WA/058/0073/003

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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]

01/01/2040

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

If dates on both licences (WA/058/0073/003 and the new licence) can be extended to expire in 18 years, that would be the preferred duration. Otherwise, both licences 31 March 2029 as per WA/058/0073/003.

Abstraction details

Abstraction location name/reference

Pond at Coed Du farm

Abstraction point type

Single point

National Grid Reference

SN 80084, 05528

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.

Gravity/syphon feed pipe of internal diameter 0.2m at Grid Reference SN 80084 05528.

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

- File: Figure 2 -Site layout Attenuation System.pdf - [Download](#)
- File: System Information and Calculations and fig 3.pdf - [Download](#)
- File: Figure 1 - Site layout.pdf - [Download](#)
- File: Site layout A4 - Scheme generating.pdf - [Download](#)
- File: Site layout A4 - Scheme not generating.pdf - [Download](#)

Abstraction quantities

Abstraction location name/reference

Pond at Coed Du

What purpose will the water be used for?

Power production.

Period of abstraction Will it be all year?

Yes

Maximum quantities (cubic metres)

Annual 406,436

Daily 2,592

Hourly 108

Peak abstraction rate (in litres per second)

30

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 water abstracted at this location is the water transferred in the parallel application (WA/058/0073/003).

The water is used for power production and the calculations can be found in the attached document.

Additional document. (Spreadsheet file formats need to be: .xls, .xlsx, or .ods)

- File: System Information and Calculations and fig 3.pdf - [Download](#)

Industry-specific requirements

| | Turbine efficiency (%) | System efficiency (%) | Maximum power output (kilowatts) | Annual capacity (kilowatt hours) |
|--|------------------------|-----------------------|----------------------------------|----------------------------------|
| | 0.9 | 0.8 | 20 | 75266 |

State the length of depleted reach (in metres)

The depleted reach and flow data have been addressed as part of approved licence WA/058/0073/003. These remain unchanged.

What low flow protection (Low flow protection is the flow rate above which abstraction can begin and is separate to the abstraction % take) do you propose to maintain in the depleted reach when the hydropower scheme is operating (in m³/s)?

The low flow protection has been addressed as part of approved licence WA/058/0073/003. These remain unchanged.

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.

Power Generated

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.

Abstraction is nonconsumptive.

Discharge details

If you intend to return any of the abstracted water to the environment, provide details below. Details of discharge location(s) should correspond with any maps submitted. Do not include discharges to a public sewage system.

| | Discharge location name / reference | National Grid Reference of discharge point (12 digit) | Total volume to be discharged (cubic metres) | Environmental Permit for Water Discharge Activity number (if applicable) |
|--|--|---|--|--|
| | un-named tributary of the River Dulais | SN 79635 05534 | All | - |
| | - | - | - | - |
| | - | - | - | - |
| | - | - | - | - |

Provide a description of the structure and equipment involved in discharge.

The outfall has previously been approved as part of WA/058/0073/003. This is unchanged.

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.

n/a

Planning application

Have you sought advice on your planning application?

Yes

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 Alun Jones

Print name Alun Jones

position Director

Date

* 30/10/2022

Would you like a copy of your submission?

Yes

Your email address

brynrhyg@outlook.com