

# 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

WRSTMODWENDEVELOPMENTS2802

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

No

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

No

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]

31/03/2030

## Abstraction details

Abstraction location name/reference

NSR drawdown pump

Abstraction point type

Single point

National Grid Reference

SS 71293 9637

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.

The pump used to draw down the water in the NSR is: a Flygt N3202 with a 200mm output.

This pump has a maximum pumping capacity of approximately 200l/s. It is used with a float system where the pump activates when water levels reach a set level. In heavy rain the pump may be on continuously, in drier weather the pump may only turn on periodically as water levels rise.

From the NSR the water is transferred via former refinery pipe infrastructure to the 'API Separators' located at (GR: 271878, 196154).

The API separators act to remove free phase contaminants from the water and allow sediments to drop out of suspension. From the API Separators the water flows under gravity to a discharge point with a permit held by Welsh Water (BP0064319/V002) at this discharge point, a 36" pipe carries water from the NSR (and other off-site sources) to the River Neath.

## Abstraction quantities

Abstraction location name/reference

NSR Drawdown Pump

What purpose will the water be used for?

Transfer to River Neath

Period of abstraction Will it be all year?

Yes

Maximum quantities (cubic metres)

**Annual** 6,307,200

**Daily** 17,280

**Hourly** 720

Peak abstraction rate (in litres per second)

200

Number of hours of abstraction per day

12 - 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.

As this is an application for 'Water Transfer' no amount of water is 'required for abstraction'.

Water needs to be transferred to maintain low water levels in the North Site Reservoir. The amount of water that will be transferred is therefore dependant on rainfall.

The following text is taken from a Flood Assessment Report For the Llandarcy North Site Reservoir produced in June 2021 by Stillwater Associates Ltd.

'The inflows to the reservoir cannot currently be controlled. For the purpose of estimating the temporary pump requirements that would allow a control of water levels during normal flow conditions, it has been necessary to estimate the normal flow regime for the reservoir catchment. No gauged flow data was available for the reservoir's catchment and therefore a software package developed by Wallingford HydroSolutions Ltd, namely LowFlows 2, was used to estimate the normal flow regimes at Llandarcy North Site Reservoir.

The results show that the upper value for normal flows (Q5) is about 0.1m<sup>3</sup>/s (100l/s); the median value for normal flows (Q50) is about 0.02m<sup>3</sup>/s (20l/s)' and the lower value for normal flows (Q95) is about 0.01m<sup>3</sup>/s (10l/s).'

## 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.

**Other (please specify):**  
N/A transfer licence

## 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.

The pump and pumping infrastructure are checked daily to ensure water is being pumped efficiently.

## Fish and eel considerations (surface water abstractions only)

Does your proposal include measures to safeguard fish and eels? Only provide details of outfall screening if abstracted water is to be discharged back into a watercourse. For further guidance on appropriate screening Intake screening for fish

	Intake	Outfall
Type of fish screen	N/A	N/A
Screen aperture size (mm)	N/A	N/A

Confirm the fish species present at your site. If you're not proposing any measures to protect fish and eels, you must justify this. For example, we may have confirmed in our pre-application response that the intake is inaccessible to fish or you undertook a fish survey to confirm.

As stated in the Ecology Solutions Ltd Ecological Assessment Report: 9011M.EcoAss.vf. May 2023:

"A suite of fish surveys was undertaken by APEM in March 2021, and deployed a range of techniques in both the deeper and shallower areas of the Application Site prior to drawdown. No fish were caught as part of this survey effort. Although this does not confirm absence per-se, it suggests at best only very small populations of fish would likely be present.

Further Site assessment in the form of a Site walkover was undertaken after the Site drawdown in March 2022. No further evidence of fish was noted as part of this walkover. This further indicates fish populations are likely absent from the Site."

## Discharge details

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

Water is transferred to the River Neath Via a Sewerage System operated by Welsh Water.

## 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?

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**        Robert Williams  
**Print name**   ROBERT WILLIAMS  
**position**      Managing Director

Date

\*    06/01/2025

Would you like a copy of your submission?

Yes

Your email address

barney.irlam@pja.co.uk