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
WRMOTTMACDONALDBENTLEY1804

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]
31/03/2025

If you require a shorter or longer duration licence, please provide details and your justification
The full abstraction licence is only required during the construction works which are currently expected to finish by March 2025.

Abstraction details

Abstraction location name/reference
FST2

Abstraction point type
Area

National Grid Reference
SN 62126 09840 (centre of FST2)

Downstream National Grid Reference (If abstracting from a reach), or corners of the area.
SN 62116 09852 SN 62137 09852 SN 62138 09829 SN 62114 09830

Do you have any further points of abstraction?
Yes

Abstraction details - Further points

Abstraction location name/reference
FST1

Abstraction point type
Area

National Grid Reference
SN 62153 09838 (centre of FST1)

Downstream National Grid Reference (If abstracting from a reach), or corners of the area.
SN 62164 09849 SN 62165 09828 SN 62138 09829 SN 62141 09851

Do you have any further points of abstraction?
Yes

Abstraction details - Further points

Abstraction location name/reference
Existing lagoon

Abstraction point type
Area

National Grid Reference

SN 62046 09902 (centre of existing lagoon)

Downstream National Grid Reference (If abstracting from a reach), or corners of the area.

SN 62029 09877
SN 62041 09927
SN 62061 09927
SN 62048 09875

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.

A maximum of 10no.boreholes around FST2 (First point of abstraction), 200mm diameter and 12m deep approx. Maximum overall flowrate abstracted (overall): 62.28 l/s.

A maximum of 10no.boreholes around FST1 (Second point of abstraction), 200mm diameter and 12m deep approx. Maximum overall flowrate abstracted (overall): 62.28 l/s.

A maximum of 14no.boreholes around the existing lagoon (Third point of abstraction), 200mm diameter and 15m deep approx. Maximum overall flowrate abstracted (overall): 122.65 l/s.

Installation of 200 mm well screen and casing, with graded filter pack. Further details on dewatering strategy attached.

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

- File: 23-112-01-DN-01 Garnswllt WwTW - Dewatering Design Note.pdf - Download

Abstraction quantities

Abstraction location name/reference

FST1

What purpose will the water be used for?

Dewatering - groundwater will be discharged directly to the Final Effluent chamber within the WwTW which gravitates to the river Loughor

Period of abstraction Will it be all year?

No

Start Date: [DD/MM/YY]
01/12/2023

End Date: [DD/MM/YY]
31/03/2025

Maximum quantities (cubic metres)	
Annual	484282.8
Daily	5380.92
Hourly	224.20

Peak abstraction rate (in litres per second)
62.28

Number of hours of abstraction per day
24

Add quantities for another location?
Yes

Abstraction quantities - Another location

Abstraction location name/reference
FST2

What purpose will the water be used for?
dewatering - water discharged into existing FE chamber within WwTW which gravitates to the river Loughor

Period of abstraction Will it be all year?
No

Start Date: [DD/MM/YY]
01/12/2023

End Date: [DD/MM/YY]

31/03/2025

Maximum quantities (cubic metres)

Annual 484282.8

Daily 5380.92

Hourly 224.20

Peak abstraction rate (in litres per second)

62.28

Number of hours of abstraction per day

24

Add quantities for another location?

Yes

Abstraction quantities - Another location

Abstraction location name/reference

Existing lagoon

What purpose will the water be used for?

dewatering - water discharged into existing FE chamber within WwTW which gravitates to the river Loughor

Period of abstraction Will it be all year?

No

Start Date: [DD/MM/YY]

01/12/2023

End Date: [DD/MM/YY]

31/03/2025

Maximum quantities (cubic metres)	
Annual	953737.2
Daily	10597.08
Hourly	441.55

Peak abstraction rate (in litres per second)

122.65

Number of hours of abstraction per day

24

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

- File: Not needed.docx - Download

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.

Please find attached the dewatering strategy note.
Please note that the annual volume are based on a 3 month dewatering period for each area (FST1, FST2 and existing lagoon).

Please see attached for reference Water Feature Survey.

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

- File: 23-112-01-DN-01 Garnswllt WwTW - Dewatering Design Note.pdf - Download
- File: SWL23-112-01-WFS-01 Garnswllt WwTW - Water Features Survey.pdf - Download

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.

Abstracted groundwater will be directly discharged to the Final Effluent chamber at Garnswllt WwTW (via a temporary settlement tank) - downstream of the existing MCERTS flowmeter. Daily checks will be carried out before every shift on the temporary hoses to check for any leaks. Daily monitoring checks will be carried out: visual check of the discharge, inspection of the temporary settlement tank (for siltation) and dewatering pumps to ensure they are working correctly.

Fish and eel considerations (surface water abstractions only)

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.

N/A

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)
	Existing FE chamber inside Garnswllt WwTW	SN 62067 09859	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

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

Each dewatering arrangement will have a common ring main (connecting each well equipped with their own pump) which will discharge into the existing Final Effluent chamber at Garnswllt WwTW (downstream of the existing MCERTS flowmeter), via a temporary settlement tank and temporary flowmeter.

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.

As per Water feature survey from July 2023 (see attached), no other abstractor has been found within 2km of the site.1 Historical groundwater & 1 surface water abstraction licences were found (expired).

Please note that the previous Morgan Sindall abstraction licence (WA05900020015) at Garnswllt WwTW has not been used (no abstraction has been carried out) and has now expired.

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	Damien Aubouin
Print name	DAMIEN AUBOUIN
position	Project Leader

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

- File: B10670-123532-ZZ-XX-CO-ZA-DH0043 - Letter of Authorisation for NRW licence application.pdf - Download

Date

* 18/08/2023

Would you like a copy of your submission?

Yes

Your email address
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