

Change a new bespoke water discharge activity and groundwater (point source) activity permit

About you

Tell us the permit number for the environmental permit you want to change. The permit number may also be referred to as your 'consent number' or your 'authorisation number' in documents that have been issued before April 2010.

EPR-CB3892ZT

Tell us who is making the application to change this permit.

First name: Jon

Last name: Maidment

Address: County Hall, Atlantic Wharf, Cardiff

Postcode: CF10 4UW

Telephone: -

Email: jmaidment@cardiff.gov.uk

Only the permit holder(s) or somebody authorised to act on their behalf can change the permit.

Are you the permit holder or somebody who is authorised to act on their behalf?

Yes

Is somebody completing this application on your behalf?

Tell us if you're using an agent or somebody else to complete this application on your behalf

Yes – I'm completing this application on behalf of somebody else

Agent or others acting on behalf of the applicant

Complete your details:

First name: Abby
Last name: Downing
Address: Arup, 4 Pierhead Street, Cardiff
Postcode: CF10 4QP
Telephone: 02920769130
Email address: abby.downing@arup.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.

Discussions with Sarah Jones in spring 2024 - last email on 26/04/24

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

No

What do you need to change?

Complete one

I need to make technical changes to my permit

Tell us about your proposed technical change

There are three different types of technical change you can make to a permit: minor, normal and substantial.

Minor variation

For changes which need some technical input from NRW, for example applications to:

Reduce the volume of discharge where no review of existing substances or habitats assessment is required Normal Variation

For changes requiring technical input from NRW, for example applications to Change outlet location which requires a review of any existing substance or habitat assessment Change the volume or the quality (or content) of a discharge and no new assessment of emission limits for specific substances is needed. Substantial variation

Where a significant assessment is required, including: Change the volume or change the quality of a discharge and a new assessment of emissions limits for specific substances is needed Specific substances are: Hazardous pollutants for water discharge activities Hazardous substances or non-hazardous pollutants for groundwater activities

Please give us details of the proposed technical change in the box below:

A change to the discharge volume now that the system is better understood and calculations have been revised

What type of change is this?

Normal

If you need to provide more information you can upload a document below

- [REDACTED]

Where will you be discharging?

Please complete

Site name Roath Park Dam

Address Roath Park
Cardiff

Postcode N/A

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/>

Scour outlet: ST 18500 79262

About the effluent

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

Roath Lake is classified as a Category A large raised reservoir under the Reservoirs Act (1975) and there is the requirement for it to have operational drawdown facilities in the case of an emergency. The scour and bypass valves are located in a chamber within the dam embankment, drawing from pipework which extends into the reservoir. Downstream of the valves, pipework discharges into a tunnel which runs through the downstream shoulder of the embankment and flows into the Roath Brook. The scour pipes and valve are ~610mm in diameter, and the bypass pipes and valve are ~250mm in diameter. The valve arrangement is the only means of drawing down the reservoir (all other flows go over the spillway).

The activities to be permitted are the emergency use and the routine testing of the reservoir scour and bypass valves, which discharge raw water from the reservoir into the Roath Brook immediately downstream of the dam. The valves will be tested at least once every 6 months as part of the Supervising Engineer's S12 Inspection under the Reservoirs Act 1975.

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.

Roath Park Dam scour

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

Yes

Tell us the effluent type:

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

Trade – rainfall dependent (such as site drainage)

Trade – rainfall dependent: How long will you need to discharge?

Is the discharge time limited?

No

Please give the date you expect the discharge to end but please note that your permit will not end on that date and you will still need to notify us to surrender the permit.

Discharge consent to remain open indefinitely

Could your discharge from other premises be made to the foul sewer?

How far away is the nearest foul sewer from the boundary of the properties (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 private sewage treatment system and the nearest foul sewer and/or private sewer.

N/A

Trade – rainfall dependent: How much do you want to discharge?

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

3000

What is the maximum rate of discharge (in litres a second)?

2.8

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

For a routine test, the scour valve will be opened for ~30 minutes and will discharge a max volume of 3,000m³, with a maximum rate of discharge of 2.8m³/s. This is on the basis that the valve will be opened for ~20 minutes at 50% open (1.1m³/s) and for ~10 minutes at 100% open (2.8m³/s).
For a routine test, the bypass valve will be opened for ~20 minutes and will discharge a volume of 150m³, with a maximum rate of discharge of 0.12m³/s.
In an emergency, the scour valve will be fully opened and within a 24 hour period it will discharge a volume of 138,000m³, with a maximum rate of discharge of 2.8m³/s.

The draw-down flow rates are calculated using the principals of the Colebrook-White equation with a Swamee-Jain approximation of the Darcy-Weisbach friction factor. Both the major (pipework friction) and minor (fitting) losses are accounted for with a varying flow rate determined based on varying depth in the reservoir. These flow rates are then used with the depth-volume curve for the reservoir basin to compare available drawdown rate against DEFRA guidance 'Guide to drawdown capacity for reservoir safety and emergency planning'.

An opening time of 20 or 30 minutes has been assumed for the two valves, with a water level starting at the weir level of the spillway (i.e. the top water level of the reservoir). This is a conservative estimate (i.e. an over-estimate of flows) as these calculations assume that the reservoir is full.

Trade - rainfall dependent: How will the effluent be treated?

Do you treat your effluent?

No

If no, please explain why the effluent will not be treated:

No. It is river water and so doesn't require treatment to be passed from the reservoir into the downstream brook.

Trade – rainfall dependent: 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

Have any 'specific substances' been detected in samples of the effluent or in the sewerage catchment upstream of the discharge?

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

Give the maximum temperature of your discharge in degrees Celsius

Temperature unknown

Trade – rainfall dependent: 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

Scour outlet: ST 18500 79262

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.

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.

- [REDACTED]

Where will the effluent discharge to?

Where will the effluent discharge to?

Non-tidal river, stream or canal

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?

No

Discharges to non-tidal river, stream or canal

Give the discharge point a unique name For example, 'Outlet 1' (you must use this name to identify the discharge point on the plan), the national grid reference and the name of the watercourse, canal or the main watercourse it is a tributary of if you know it

	Discharge point name	National grid reference	Watercourse name	Name of effluent discharged through this discharge point
1	Scour outlet	ST 18500 79262	Roath Brook	reservoir water
2	-	-	-	-
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-

Is the discharge into a

Stream

Does the discharge reach the watercourse or canal by flowing through a surface water sewer?

No

Does the watercourse dry up for part of the year?

Effluent should discharge to watercourses which flow all year. Discharging to a dry watercourse may cause the effluent to pond and cause other environmental or amenity issues"

No

Environmental risk assessment and modelling

Have you carried out any river quality modelling? Read the 'Surface water pollution risk assessment for your environmental permit' guidance available on Gov.UK to determine if you need to provide this modelling.

No

Site plan

If the changes you're making involve moving outlets or updating grid references for your activities, you will need to provide an updated site plan.

The site plan should be 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

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How do you want to pay?

Who can we talk to you about your billing or invoice?

Same as application contact

How do you want to pay for your application fee?

Electronic transfer (e.g. BACS)

Paying by electronic transfer

Please provide your reference for the payment.

Payment reference: EPRCARDI0001

Amount paid: 5,126.00

How we collect your personal data

We will process the information provided by you in line with the Data Protection legislation.

For more information on how we manage, store and use your data, see our Privacy Notice (opens in new tab)

I have read and understood this information

Freedom of Information

Under the Freedom of Information Act 2000, anybody may request information from a public authority. The Act grants two statutory rights: to be told if the public authority holds that information; and if so, to have that information communicated to you.

Find out how to request information under the Freedom of Information Act.

I have read and understood this information

Confidentiality and National Security

We will normally put all the information in your application on a public register of environmental information. However, we may not include certain information in the public register if this is in the interests of national security, or because the information is confidential. Confidential information is information that is commercially or industrially confidential in relation to any person and is unlikely to be applicable for small-scale sewage discharges.

You can ask for information in the public register to be made confidential or withheld in the interests of national security by answering the question below and provide information on the next page giving your reasons. If we agree with your request, we will tell you and not include the information in the public register. If we do not agree with your request, we will let you know how to appeal against our decision, or you can withdraw your application.

Do you believe that for reasons of confidentiality or national security your details should not be included on the public register?

Yes

Claiming confidentiality and National Security (continued)

Please upload your evidence

- [REDACTED]

Declaration

A relevant person should make the declaration. You must be a relevant person or have the authority of a relevant person to sign this application on their behalf. An agent acting on behalf of an applicant is NOT a relevant person.

Each individual (or individual trustee) who is applying for their name to appear on the permit must complete this declaration. You can send a separate document with the relevant information if there are not enough spaces to sign below.

Relevant people means each applicant, and in the case of a company, a director, manager, company secretary or any similar officer or employee listed on current appointments in Companies House. In the case of a Limited Liability Partnership (LLP), it includes any partner. If the permit holder is an organisation of individuals, each individual (or individual trustee) must complete the declaration.

To simplify and speed up the application process, we recommend that the declaration is filled in by an officer of a company or one of the partners in a Limited Liability Partnership (LLP).

If you wish a manager, employee or consultant etc. to sign the declaration on behalf of a relevant person, we will need written confirmation from a relevant person; that is, an officer of the company, a partner in the LLP or the individual, confirming that the person has the authority to fill in the declaration.

If you are joint permit holders, you should each fill in your own declaration. We have provided extra spaces for this below. Please upload a separate sheet with your application if you need more room for signatories.

Where the operator is the subject of any insolvency procedure, the declaration must be filled in by the official receiver/appointed insolvency practitioner.

I have included written confirmation from a relevant person to confirm I can sign on their behalf

Upload written confirmation here

- [REDACTED]

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	-
First name	Abby
Last name	Downing
On behalf of (if applicable)	Jon Maidment, Cardiff Council
Date (DD/MM/YYYY)	13/02/2025

Submit your application

Enter the email address you'd like a copy of your application sent to:
abby.downing@arup.com