

**Project:**

**PhD student placement opportunity**

**Water quality monitoring in Wales – building a full picture, and understanding the strengths, weaknesses, and gaps in data**

The Water and Flood Division of the Welsh Government is seeking a PhD student for a placement opportunity within its Water Policy team. The team's remit falls under the portfolio of the Minister for Climate Change which supports delivery objectives identified under primary legislation such as the Environment (Wales) Act 2016 and the Wellbeing of Future Generations Act 2015. The team works closely with a wide variety of internal and external stakeholders and representatives of the UK Government and the other Devolved Administrations.

Water is one of Wales' most valuable natural assets and an essential contributor to our economy. The Water team is responsible for developing bespoke policy for Wales for sustainably managing its water systems, including inland waters, estuaries and coastal waters. The team also oversees the effective functioning of Wales' water industry and safeguards drinking water quality in line with statutory specifications.

**Background**

Waterbodies in Wales are under continuing pressure from climate change, extreme weather events, pollution levels and increased demand for water to support population growth. To introduce effective policy interventions, it is imperative that we understand the impact of these pressures and establish a full picture regarding the health of our rivers, lakes and coastal waters. We need reliable and robust datasets to assess their status and identify the main pollution sources affecting them on a catchment level.

In Wales, Natural Resources Wales (NRW) carries out statutory water quality monitoring under regulatory requirements and international/national commitments. Other organisations such as water companies, the Coal Authority, the Rivers Trust and academic institutions also collect data related to water quality.

At present, there is no platform where all water quality monitoring data relevant to Wales would be collated and presented. As a consequence, it is unclear how much water quality monitoring is happening in Wales, how reliable the data collated is and where water quality monitoring gaps are. Furthermore, emerging contaminants present a risk to water quality, and we need to ensure that these are built into our monitoring programmes.

NRW is currently reviewing their freshwater monitoring with the aim to develop a more agile and cost-effective programme. The Water Research Institute of Cardiff University has set up a Water and Wastewater Surveillance Task Force which is also considering water quality monitoring and data sharing in Wales.

Improving water quality in Wales is a key objective of the Welsh Government. There is a commitment, linked the designation of inland water bodies for recreation, to strengthen water quality monitoring under the Programme for Government (PfG): [Welsh Government - Programme for Government](#).

**Purpose of the Post**

The postholder will be expected to provide a comprehensive overview of ongoing water quality monitoring in Wales and identify organisations that are involved in water quality data collection



## Doctoral Training Policy and Evidence Placement

in a final report. Engagement with relevant stakeholders will form a central part of the placement, whilst the appointed student collates the necessary information.

The report will need to outline the type of data collected and how this links to national or international commitments and policy drivers. Identifying gaps in monitoring, in terms of substances and geographical locations, will also be an aspect to consider.

Part of the final report is expected to consider new approaches to water monitoring, novel techniques, cost effective solutions and the use of citizens science.

Another key aspect of the placement is the consideration of data sharing and data presentation using a national virtual platform, to be developed in collaboration with Cardiff University and other stakeholders.

The longer-term objectives the postholder will contribute to include:

- Strengthening water quality monitoring in Wales in line with the PfG commitment.
- Gaining a better understanding of ongoing water quality monitoring in Wales.
- Supporting the development of effective policy decisions and interventions.
- Developing an integrated system approach that incorporates all available data sets and is flexible enough to accommodate existing and future monitoring needs.
- Supporting the use of innovative and cost-effective monitoring techniques and modelling platforms.

### **Key Tasks**

- Engagement with internal and external stakeholders
- Attendance of relevant meetings and workshops
- Information gathering and presentation of collated data in a succinct manner
- Identification of gaps in water monitoring
- Consideration of future option and solutions in the final report
- Supporting the development of a data sharing platform for water monitoring

The exact tasks required of the student will be dependent on the particular focus of the team at the time of the placement and the student will likely have the opportunity to become involved in other work areas where they have a specific interest.

### **Details**

<b>Skills required:</b>	<b><u>Key Skills</u></b> <ul style="list-style-type: none"> <li>• Excellent research skills</li> <li>• Excellent interpersonal skills</li> <li>• Ability to analyse complex information and data</li> <li>• Ability to write clearly and concisely</li> <li>• Ability of presenting technical material in an accessible format</li> <li>• Presentation skills</li> <li>• Creative thinking</li> <li>• Ability to apply an innovative approach</li> </ul>
<b>Outputs:</b>	As agreed with line manager and in relation to the above priorities
<b>Host Organisation:</b>	Welsh Government



## Doctoral Training Policy and Evidence Placement

<b>Placement Start Date</b>	2023
<b>Development Opportunities</b>	<p>The placement provides an opportunity to gain insight into the functioning of Welsh Government and evidenced based policy development at the highest level. The post-holder will work in an interesting and diverse team, contributing to the shaping of a future policy direction. The post-holder will be expected to work independently within parameters and guidelines provided by the Welsh Government. Working closely with a wide range of colleagues the successful candidate will build valuable working relationships, broaden their knowledge of public policy-making and enhance their existing transferable skills.</p> <p>The student will join an analytical team managing a diverse evidence-base and delivering technical and advisory support across the Climate Change response agenda. This is an interesting and diverse role, working on a high-profile programme across Welsh Government portfolios which will allow the student to gain a broad knowledge and understanding of Welsh Government policy work. With support from their Welsh Government supervisor, the student will be expected to take responsibility for managing and delivery of work commitments during the placement period.</p>
<b>Duration, location, working arrangements and environment:</b>	<p>The role will be full-time and is normally based with the policy team in one of Welsh Government's regional offices. In line with the flexible working policy, the post-holder will be able to work from home, and office working will also be an option. This is in-line with working arrangements for all Welsh Government employees.</p> <p>Post-holders will be provided with a laptop to facilitate regular contact with the policy team members and line management, other policy teams and external partners. Due to the remote nature of working, the policy team will ensure that the post-holder is fully supported during the placement and will endeavour to ensure that the placement is as close to the in-team office-based experience as possible.</p> <p>The placement will be for a 3-month period and will focus on delivering the objectives set out in the job specification. The option to extend for a further 3 months is possible if the project team feel there is merit in doing so and if it is compatible with the post-holder's university research schedule and DTP/CDT arrangements.</p> <p>The Welsh Government is a bilingual organisation and Welsh language skills are considered an asset to the organisation. We encourage and support staff to use their Welsh language skills during a placement.</p> <p>Start date will be agreed following successful Welsh Government security clearance.</p>
<b>Application criteria</b>	<p><b>Welsh Government can only accept applications to the PhD student placement programme from registered students.</b></p> <p><b>All applicants must seek approval from their academic supervisor before applying</b></p>
<b>Funding</b>	



## Doctoral Training Policy and Evidence Placement

The placement will be funded by Welsh Government and will match the current UKRI PhD stipend rate, payable in one sum at the beginning of the placement (to minimise financial administration). The payment process aims to compliment PhD student university stipend payment structures, i.e. WG pay the university and the funds are passed-on to the student's account. **Please note: we do not pay students directly**

### Contact

**Name:**

Stephany Aymerich (Research & Academic Engagement Manager) via  
[ResearchPlacements@gov.wales](mailto:ResearchPlacements@gov.wales)

The Welsh Government takes the protection of your data seriously. If you contact the Welsh Government then our **Privacy Notice** explains how we use your information and the ways in which we protect your privacy.

### Application process

Please submit CV and covering letter to Stephany Aymerich. **NOTE: All applicants must confirm that they have received authorisation to take an interruption of studies from their academic supervisor**

If you have an impairment or health condition, or use British Sign Language and need to discuss reasonable adjustments for any part of the placement programme, or wish to discuss how we will support you if you are to be successful, please contact [Stephany.Aymerich@gov.wales](mailto:Stephany.Aymerich@gov.wales) as soon as possible to discuss your requirements and any questions you may have.