
An Fóram Uisce

Early Stage Researcher Bursaries

Call for Applications

Closing Date: Monday 28 September 2020

Queries to be addressed to:

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1. INTRODUCTION TO AN FÓRAM UISCE

An Fóram Uisce (The Water Forum) was established in June 2018 in accordance with the provisions of Part 5 of the Water Services Act 2017. The Forum is the only statutory body representative of all stakeholders with an interest in the quality of Ireland's water bodies. The Water Forum consists of 26 members including representatives from a wide range of organisations with direct connection to issues relating to water quality and also public water consumers. Approximately 50 different organisations were involved in the nomination of members.

The Water Services Act 2017 provides the statutory basis for The Water Forum. The Water Forum has advisory roles in relation to the Minister for Housing, Planning and Local Government, Irish Water, the Commission for Regulation of Utilities and also the Water Policy Advisory Committee. The Act also provided for the dissolution of the Public Water Forum and the National Rural Water Services Committee with their functions being incorporated into The Water Forum.

The Water Forum provides an opportunity for stakeholders to debate and analyse a range of issues with regard to water quality, rural water concerns, issues affecting customers of Irish Water and the implementation of the Water Framework Directive and the River Basin Management Plan for Ireland 2018-2021. The Water Forum is an independent entity and has discretion to determine its own work programme and means of communicating its views and analysis. To this end, it has adopted its [Strategy](#) for 2018-2021.

Dr Tom Collins, who had been the chair of the Public Water Forum and a former Chair of the National Rural Water Monitoring Committee, is the Chairperson and Mr Donal Purcell is Senior Executive Officer. The Water Forum is headquartered in Nenagh, County Tipperary.

1.1 An Fóram Uisce's Role in Research

In accordance with the provisions of the Water Services Act 2017, The Forum is required to advise the Minister for Housing, Local Government and Heritage in relation to water services and the water environment. Article 26 of the Water Services Act 2017 outlines the function of The Forum, including *“(e) to examine such other water-related matters [concerning the management of the inland aquatic environment and water resources], including the carrying out of research concerning those matters, as the Minister requests the Forum to examine and to advise the Minister accordingly.”* To this end, The Forum is committed to working with stakeholders to fill water-related knowledge gaps and inform policy to deliver on the Forum's Strategy.

The Strategy identifies six key thematic areas to which priority research actions will be aligned:

- Drinking water source protection
- Invasive species
- High status water bodies
- Physical alterations to water bodies
- Nutrient pollution
- Water conservation.

2. EARLY STAGE RESEARCHER BURSARIES OVERVIEW

An Fóram Uisce offers the opportunity for Early Stage Researchers to apply for individual bursaries to undertake short, desk-based research around nine specific topics, the details of which are outlined in Section 2.2.

These bursaries aim to:

1. Address key topic areas of importance to An Fóram Uisce to inform the Forum's policy positions on these topics, and to identify future foci for further research by the Forum.
2. Increase awareness of the role of An Fóram Uisce and its aim to bridge any gaps between science and policy.
3. Provide funding support to Early Stage Researchers in Ireland.
4. Increase the policy relevance of scientific research undertaken by Early Stage Researchers in Ireland and to provide the linkages for such research to inform the policy process.
5. Provide further opportunities for Early Stage Researchers to develop experience in competitive funding application processes.
6. Increase the visibility of Early Stage Researcher research activity.

Applicants may apply for a bursary under any of the listed topics. Any applicant may apply for more than one topic but no more than one award may be made to any individual applicant. If an applicant wishes to apply for more than one topic, a separate application must be made for each topic.

A maximum of 6 bursaries will be awarded.

2.1 ELIGIBILITY

The Irish Research Council Career Development Policy Statement¹, categorises Early Stage Researchers “as researchers up to the point of achieving PhD and PhD holders that are not fully independent.” This corresponds to categories R1 “First Stage Researcher (up to the point of PhD)” and R2 “Recognised Researcher (PhD holders or equivalent who are not yet fully independent)” of the European Framework for Research Careers².

For the purpose of these bursaries, applicants must either:

1. Be registered for a level 10 degree³ at an Irish Higher Education Institution⁴ with the aim of pursuing a PhD qualification; OR
2. Have been awarded a PhD (level 10 qualification) no more than 2 years prior to the bursary application submission deadline (see Section 5); AND currently be employed at an Irish Institute of Higher Education.

2.2 PROJECT TOPICS

Nine topics are open for application, however, only six bursaries will be awarded.

Table 1 provides the background information and key questions to be addressed for each topic.

¹ http://research.ie/assets/uploads/2017/05/IRC-Researcher-Career-Development-Policy-Statement_29Sept2017.pdf

² https://cdn5.euraxess.org/sites/default/files/policy_library/towards_a_european_framework_for_research_careers_final.pdf

³ Irish National Framework of Qualifications: <https://nfq.qqi.ie/>

⁴ <https://hea.ie/higher-education-institutions/?v=1>

Table 1: Research topics, background information and key questions.

Topic No.	Topic Title	Background Information	Key Questions
1	A Framework for Improving Domestic Water Conservation in Ireland	Ireland has just experienced its second drought in two years, accompanied by the recent ending of the country's second ever Water Conservation Order. Water shortages are likely to become more frequent as a result of climate change and population demographic pressures. While the State utility, Irish Water, works to reduce leakage rates on the drinking water distribution network, the general public has a part to play in delivering water conservation measures. Yet, there appears to be a hesitancy to voluntarily introduce water conservation measures within the wider populace.	<ul style="list-style-type: none"> • What mechanisms are needed to best encourage and facilitate domestic water conservation measures in the light of future population growth, a changing climate and differing social values associated with water? • Can international case studies help to inform a new approach to increasing the uptake of water conservation measures in Ireland?
2	Towards Improving Building Regulations for Water Conservation	The 2008 and 2010 Building Regulations provide for water conservation measures relating to sanitary conveniences and washing facilities; and rainwater harvesting respectively. No public grants to facilitate water conservation measures have been available since the suspension of the Government's Water Conservation Grant in 2016. Currently, the Building Energy Ratings (BER) Certificate identifies a home's energy performance, and homes cannot be sold without a BER Certificate.	<ul style="list-style-type: none"> • What mechanisms are required to improve the building regulations with regards to water conservation measures? • Is there feasibility in extending the BER to include water conservation measures or in developing a new compulsory water conservation-related certificate based on the BER model?
3	Communicating Water Availability to Improve Awareness and	Ireland's climate is changing and this, combined with demographic change will impact on the availability of water resources for critical use such as drinking water, both in terms of water quality and water availability. Improving public communication surrounding forecasting	<ul style="list-style-type: none"> • How can public communication on water availability in Ireland be improved?

	Implementation of Water Conservation Measures	<p>of groundwater and surface water variability at a regional scale has the potential to be used as a precursor for highlighting water conservation needs. The UK provides public water resource availability forecasting through its hydrological outlook tool (https://www.hydoutuk.net/) and the Centre for Ecology and Hydrology's near-real time drought portal (https://eip.ceh.ac.uk/apps/droughts/). In Ireland, the Environmental protection Agency has recently developed monthly hydrometric bulletins (http://www.epa.ie/pubs/reports/water/flows/hydrometricbulletins/).</p>	<ul style="list-style-type: none"> • What lessons can be learned from the 2018 and 2020 droughts both from Ireland and the UK in terms of communicating information on water conservation?
4	Source Protection of Small Private Drinking Water Supplies	<p>Drinking water source protection is a priority research topic for An Fóram. Significant progress has been made on drinking water source protection in the privately-sourced Group Water Scheme sector⁵, and Irish Water have initiated a Source Protection Pilot Project. Small private supplies provide drinking water to many business, (e.g. hotels, B&Bs and pubs) and public buildings such as creches, schools and campsites. The quality of drinking water provided by the small private supplies is consistently poor in comparison to public supplies and the publicly-sourced and privately-sourced Group Water Scheme sectors. Water quality monitoring for small private supplies is often insufficient, supplies are often unregistered, treatment may often be inadequate, and knowledge of source protection measures may be lacking.</p>	<ul style="list-style-type: none"> • By reviewing the current knowledge and available data on small private supplies, what recommendations can be made for improving drinking water quality for these supplies from a source protection perspective? • How can this information be actively communicated to suppliers so that risks to public health can be mitigated? • What barriers are present which may restrict mitigation measures being implemented?

⁵ <https://nfgws.ie/category/source-protection/>

5	<p>Understanding the contribution of informal education providers in raising awareness of water conservation measures</p>	<p>Informal education providers often produce and deliver educational resources associated with water, water conservation, catchment ecology and its management. These resources are often delivered on a project-specific basis, with little or no overarching regional or national coordination.</p> <p>This topic will focus specifically on understanding the number of informal education activities being undertaken across the country with regards to water conservation measures.</p>	<ul style="list-style-type: none"> • Which organisations are delivering the programs? • What resources have been developed by informal education providers? • What age groups are being targeted by informal education providers? • What funding mechanisms are supporting these programs? • How long are these programs delivered for?
6	<p>Understanding sediment contamination legacy issues in lake and river sediments and the implications for catchment management and drinking water source protection</p>	<p>Lake and river sediments have the potential to act as a reservoir of nutrient, chemical and microbial pollution. Undertaking catchment-scale mitigation measures, for example to reduce nutrient contamination of waters, may be hindered by the legacy of historical pollution held within lacustrine and riverine sediments.</p> <p>This topic will summarise the available knowledge on sediment contamination legacies, focussing on phosphorus and nitrogen; but also addressing other contaminants of importance for catchment management and drinking water source protection.</p>	<ul style="list-style-type: none"> • What is the evidence for sediment contamination legacy issues in both Ireland and internationally? • How long can different contaminants remain within sediments? • What are the implications of climate change in the form of hydrological change (e.g. flow rates and water levels) and water temperature change, on the release of contaminants from sediments into the water column? • What are the implications of sediment contamination legacies

			for catchment management and drinking water source protection?
7	Delivering Behavioural/Process Change for optimising water quality returns	Public Participation and community engagement are integral components of Integrated Catchment Management (ICM). While ICM fosters a collaborative top-down and bottom-up approach, taking collective responsibility requires behavioural or process change within governing bodies and agencies across the hierarchy of water governance.	<ul style="list-style-type: none"> • What mechanisms exist to facilitate behavioural/process change within governance structures and governing agencies? • What lessons can be learned from the international literature regarding behavioural/process change to improve the delivery of Integrated Catchment Management in Ireland to optimise water quality returns?
8	Nutrient recovery and recycling	Nutrients such as nitrogen, phosphorus and ammonium are environmental stressors of aquatic systems, often entering waters from human wastewater and following agricultural application of fertilisers. Recovery of nutrients from wastewater and recycling back to agricultural application will assist in achieving the goals for a circular economy and increase the sustainability of nutrient management in agriculture.	<ul style="list-style-type: none"> • What are the technological, legislative, policy and social opportunities and barriers to implementing wastewater nutrient recovery and recycling in Ireland?
9	Understanding mariculture effects on migratory fish populations	<p>The development of mariculture within Irish coastal environments has socio-economic benefits for local communities. Such development also has implications for the ecology of native wild species.</p> <p>This topic will specifically focus on the impacts of mariculture on native salmon and trout populations.</p>	<ul style="list-style-type: none"> • What have been the effects of mariculture development in Ireland on native wild salmon and trout populations? • What are the policy and legislative implications of these effects?

3. PROJECT DELIVERABLES

The following deliverables are required for **all** awarded bursaries:

- Final report, encompassing a literature review and addressing the key questions identified for each topic described under Section 2.
- A Policy Brief document identifying the key policy recommendations for the respective topic.

4. BURSARY VALUE AND PAYMENT SCHEDULE

Individual bursaries will be awarded to the value of **€5,000** per successful applicant.

A payment of 100% of the value of each bursary will be made upon the signing of the Bursary Funding Agreement between An Fóram Uisce, the Early Stage Researcher and the Host Institution.

5. TIMELINES

The proposed preferred timeframes for project delivery are outlined in Table 2, but there is some small flexibility in the timeframe and these will be confirmed with the successful applicants at the relevant project initiation meetings.

Table 2: Proposed timeframes for project delivery

Publication of tender	7 August 2020
Deadline for tender submissions	28 September 2020
Award of tender and start of project	9 October 2020
Project initiation meeting	On or before 23 October 2020
Draft deliverables submitted	On or before 29 January 2021

Following review of the draft deliverables by An Fóram Uisce, completed finalised deliverables are to be submitted which take into account any proposed amendments to the drafts.

6. MARKING SCHEME

All submissions will be assessed by a panel of suitably qualified persons.

Marks will be awarded (maximum 100 marks) based solely on the information provided in the application, as follows:

- Demonstrate a clear understanding of the subject matter for the topic of application and the requirements of the project (40 marks).
- Project management arrangements, including supervisory arrangements of the Early Stage Researcher (10 marks).
- Timeline for the project, including a GANTT chart outlining the project actions and deliverables (20 marks).
- Demonstrated relevant research track record of the Early Stage Researcher appropriate to the subject matter, including any previous/ongoing projects delivered and scientific publications appropriate to the stage of researcher (30 marks).

7. SUBMISSION OF APPLICATIONS

Applications must be submitted no later than **5pm 28 September 2020** via email to Dr Alec Rolston, Research Lead, An Fóram Uisce: alec@nationalwaterforum.ie.

Submissions must include:

- A completed application form.
- A CV (max 4 pages) of the applicant.

An acknowledgement of receipt of applications will be issued within 48 hours of the submission deadline.

8. AWARD OF BURSARIES

A MAXIMUM OF SIX bursaries will be awarded, with no more than one award made to any individual applicant.

Applicants will be notified of the success of their submissions no later than **9 October 2020**.

Bodies of work may be initiated immediately from the date of award, with an initial project meeting to meet with successful applicants and discuss the project to take place on or before 23 October 2020.

9. TERMS AND CONDITIONS

- All applications must be made using the official application form.
- An Fóram Uisce will disqualify incomplete applications, applications not using the application form provided and any application received after closing time/date. Compliance with the word limitation contained on the Application Form is a requirement of the application process.
- It is a necessary requirement of the application process that each successful applicant must provide a copy of their Organisation/University/Institution's current Tax Clearance Certificate.
- An Fóram Uisce will have copyright ownership of any material developed for use by An Fóram Uisce under the terms of each bursary. The awardee may have a non-exclusive licence to use such material but only for their own purposes (to be agreed with the successful awardees).
- The principles of Ireland's National IP Protocol 2019 will be applied where there is any potential for commercial exploitation of project outputs resulting from these bursaries.
- An Fóram Uisce encourages an open access publication policy. Publications arising from bursary awards provided by An Fóram Uisce should, as a minimum, ensure open access via Green methods (depositing the peer-reviewed manuscript in an online repository before, at the same time, or after publication). All reports will be uploaded to, and publicly accessible via, The Water Forum's website: www.thewaterforum.ie.
- Any publications arising from bursary awards provided by An Fóram Uisce must acknowledge An Fóram Uisce|The Water Forum as the source of funding.
- Awardees funded by An Fóram Uisce must uphold the highest standards of research integrity and An Fóram Uisce expects all awardees to abide by the guidelines outlined in the National Policy Statement on Ensuring Research Integrity in Ireland; and the European Code of Conduct for Research Integrity.

- Data Protection and Freedom of Information – When an application is received by An Fóram Uisce, a record is created in the name of the applicant. This information will be stored by the office of An Fóram Uisce, where relevant, in paper/electronic form. Information that is collected by the Office, including information that you give us, is added to the record. You have the right, given by the Data Protection Act of 1988 and 2003, to a copy of your information at any time. The Office is also subject to the Freedom of Information (FOI) Act, 2014.

The information we record is used for the following purposes:

- Processing and assessing of applications;
- Payment arrangements;
- Auditing requirements;
- Informing and advising An Fóram Uisce in relation to the Project and using same as a basis for further consideration by An Fóram Uisce including research projects and policy analysis and recommendations;
- Publication of the Project Outcomes.

End/