

Request for Research Tender on

Projected climate change in Ireland and associated risk to water quantity; a review of national policies, governance and plans for future proofing Ireland's water supply

**Closing Date:
Friday 17th June 2022**

Queries to be addressed to:

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<https://thewaterforum.ie/>

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1. INTRODUCTION TO THE WATER FORUM

The Water Forum (An Fóram Uisce) was established on a statutory basis in June 2018, in accordance with the Water Services Act 2017. The Forum has advisory roles in relation to the Minister for Housing, Local Government and Heritage, Irish Water, the Commission for Regulation of Utilities and the Water Policy Advisory Committee.

The Forum is the national statutory body representative of all stakeholders with an interest in the quality of Ireland's water bodies, to facilitate stakeholder input to water policy development in Ireland. The Forum consists of 25 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 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 Ireland's River Basin Management Plan. As an independent entity, the Forum has discretion to determine its own work programme and means of communicating its views and analysis. The vision of the Water Forum is for clean and healthy waters, supporting biodiversity, community wellbeing and economic sustainability. One of the roles of the Forum is to debate and analyse water issues related to climate change.

Dr Matt Crowe is the Chairperson of the Water Forum, Mr Donal Purcell is the Senior Executive Officer, Dr Triona McGrath is the Research Lead, Dr Gretta McCarron is the Communications and Education Lead, and Martin Ryan is the Administrative support.

Further information on the work of the Water Forum is available at www.thewaterforum.ie

2. RESEARCH BACKGROUND

The global climate change crisis is inextricably linked to water¹. According to the UN Sixth IPCC report², climate change is intensifying the water cycle and affecting precipitation patterns, with more intense rainfall events and associated flooding in some regions or extended droughts in others.

Ireland's Climate Action Plan³ indicates that climate change in Ireland will cause further pressure on water resources with *“Increased water demand as a result of the increased frequency of heatwaves, leading to further strain on water transmission and distribution networks, as well as on supply (abstraction and storage)”*. Changes to rainfall patterns, coupled with increasing population growth and changes to socio-economic factors, could add additional pressures to water services in Ireland. Irish Water's National Water Resources Plan⁴ indicates that 58% of water resource zones have a supply risk in normal conditions and 66% are in deficit during drought conditions.

In 2019 the Department of Housing, Local Government and Heritage (DHLGH) developed a sectoral climate change adaptation plan for water⁵ (water quality and water services infrastructure) to present contingency plans to address the risks posed by climate change. This report outlined the future projections of climate change in Ireland (Page 8);

- A net decrease in total annual precipitation and event frequencies
- Projected decreases in summer precipitation, with increased frequency/duration/magnitude of summer dry/drought periods - closely associated with higher temperatures
- Geographical and temporal nuances in precipitation patterns from west to east (i.e. more pronounced wetting in the west in winter and more pronounced drying in the east during summer)

These changes in precipitation patterns will have associated impacts on the amount of water available for use within a catchment, including both surface water sources (rivers, streams and lakes) and groundwater and associated spring and well water sources.

The DHLGH sectoral plan for water recommends a number of adaptation measures for water supply resilience with future climate change, including operational drought planning and water resource planning. In its National Water Resources Plan, Irish Water have included an Appendix⁶ on drought planning, which has limited detail on real actions to be carried out to deal with future changes to water supply, while the associated draft Regional Water Resource Plan for the Eastern and Midlands Region⁷ did not include site specific drought management plans for the region.

¹ [UN Water PolicyBrief ClimateChange Water.pdf \(unwater.org\)](#)

² [AR6 Climate Change 2021: The Physical Science Basis — IPCC](#)

³ [gov.ie - Climate Action Plan 2021 \(www.gov.ie\)](#)

⁴ [2.-NWRP-Framework-Plan_For-Final-Adoption_2021_05_25.pdf \(water.ie\)](#)

⁵ [dhplg_sectoral_adaptation_plan_final_en.pdf \(old.gov.ie\)](#)

⁶ [NWRP_FP-Appendix-E_Drought-Planning-Final-.pdf \(water.ie\)](#)

⁷ [Draft Regional Water Resources Plan: Eastern and Midlands](#)

It appears that drought management and supporting policies and legislation in Europe and the UK are considerably more advanced than in Ireland at present; for example, water companies in England and Wales are obliged to produce a drought management plan every five years (Hammond et al., 2021), while England have prepared a report, *'Preparing for a drier future; England's water infrastructure needs'*⁸ which outlines how England will address water supply challenges and deliver the appropriate level of resilience for the long term.

Ireland's draft River Basin Management Plan 2022-2027 (RBMP), an essential national policy setting out the measures necessary to protect and restore the quality of Ireland's waters, has a proposed measure to *'Update the Climate Adaptation Plan for the Water Quality and Water Infrastructure Sectors'*. The Water Forum will analyse and provide advise to the review of this sectoral adaptation plan for water.

3. PROJECT OVERVIEW

The Water Forum proposes to commission a piece of research to evaluate if and how Ireland's policies (e.g. Government, Irish Water and Rural Water policies) and climate change adaptation plans adequately address the risk on water resources from future climate change, in particular water quantity and the resilience of Ireland's drinking water supplies.

The research should include (but not limited to);

- Climate change projections for Ireland and projected impacts on water quantity, especially through droughts and floods
- Overview of national monitoring and data on water availability
- Review of national governance and policies relevant to the resilience of Ireland's water supply and/or adaptation to projected climate change
- Summary of policy and data gaps in relation to future proofing water supplies
- Learnings from relevant international approaches to drought and flood management (e.g. UK, Europe)
- Key policy recommendations (e.g. governance, water resource planning, national drought planning, risk management, water conservation, communications).

4. IMPACT OF RESEARCH

The proposed impact of this research is to inform thinking, communications and policy development around global warming, climate change and water quantity. The research would support dialogue with national stakeholders to support the Water Forum's advisory role in relation to water quality and the management of Ireland's water resources. It is envisioned that the research and policy recommendations could support the development and future revisions of climate and water policies to support their integration and provide context for the future review of the climate adaptation plan for the water sector.

⁸ [Preparing for a drier future \(nic.org.uk\)](https://www.nic.org.uk)

5. PROJECT DELIVERABLES

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

- Final Report, encompassing all research themes listed under Section 3.
- A Policy Brief document identifying the policy and data gaps in current national legislation, along with key policy recommendations to address water management in the context of future climate change.

6. BUDGET

The currency and invoices in which all prices and rates shall be quoted, and which payments under the contract will be paid, shall be Euros (€).

The **maximum budget is €24,950**, inclusive of VAT and overheads where applicable.

6.1 Payment Schedules

An upfront payment of 50% of the total agreed budget will be made upon receipt of invoice from the contracted service provider or institution following the initiation of the project.

A final payment of the remaining 50% of the total agreed budget will be made on project completion within the timeframes stated within Section 6, and following receipt of the final report.

7. TIMELINES

It is a requirement that this draft report is **completed on or before 1st November 2022** as per the timeframe outlined in Table 1.

Table 1: *Timeframe for project delivery*

Publication of tender	6 th May 2022
Deadline for tender submissions	17 th June 2022
Award of tender and start of project	To be confirmed with awardee
Project initiation meeting	To be confirmed with awardee
Draft report submitted	On or before 1 st November 2022

Following review of the draft report, a completed final report is to be submitted which takes into account proposed amendments to the draft report.

8. 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 submission, as follows:

- Demonstrate a clear understanding of the subject matter of the brief and the requirements of the project (30 marks)
- Project management arrangements (10 marks)
- Details of budget, including compliance within the stated budget (10 marks)
- Timeline including mandatory GANTT chart outlining the timeline for project actions and deliverables (10 marks)
- Demonstrate relevant research track record of team appropriate to the subject matter, including previous/ongoing projects delivered and scientific publications (40 marks)

9. SUBMISSION OF TENDERS

Applications must be submitted no later than **4pm Friday 17th June 2022** via email to Dr Triona McGrath, Research Lead, the Water Forum: triona@nationalwaterforum.ie.

Submissions must include:

- A completed application form.
- A CV (max 4 pages) of the lead person to whom the tender will be awarded.

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

10. AWARD OF TENDERS

One award will be made through this request for tenders.

Bodies of work may be initiated immediately from the date of award; however suitable timelines can be discussed between the awardee and the Forum's Research Lead after the award has been granted. The project will commence with an initial project meeting between the awardee and the Forum's Research Lead.

11. TERMS AND CONDITIONS

- All applications must be made using the official application form.
- Applications may be received from consortiums of individuals from different institutions. Such applications must identify the **lead person** to whom the tender may be awarded. All other members of the consortium will be sub-contracted by the lead person. The maximum total budget of €24,950 (inclusive of VAT and overheads) is applicable to single service provider applications and consortium applications respectively.

- The Water Forum 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 the successful applicant must provide a copy of their Organisation/University/Institution's current Tax Clearance Certificate, after the grant has been offered.
- Failure to address within the final report each of the items included under Section 3 and the relevant thematic area will result in the withholding of final payment until all requirements are met.
- The Water Forum will have copyright ownership of any material developed for use by the Water Forum under the terms of this tender. The service provider may have a non-exclusive licence to use such material but only for its own purposes (to be agreed with the successful service provider).
- 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 this tender.
- The Water Forum encourages an open access publication policy. Publications arising from tender awards funded by the Water Forum 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.nationalwaterforum.ie.
- Any publications arising from tender awards funded by the Water Forum must acknowledge An Fóram Uisce|the Water Forum as the source of funding.
- Projects funded by the Water Forum must uphold the highest standards of research integrity and the Water Forum expects all tender 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 the Water Forum, a record is created in the name of the applicant. This information will be stored by the office of the Water Forum, 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 the Water Forum in relation to the Project and using same as a basis for further consideration by the Water Forum including research projects and policy analysis and recommendations;
 - Publication of the Project Outcomes.

End/