



Icon Water and ActewAGL Endowment Fund Call for Expressions of Interest

The ANU, is seeking concept proposals from ANU researchers who wish to build partnerships with Icon Water to work on key challenges of water sustainability.

The ANU is looking to fund research from the Icon Water and ActewAGL Perpetual Endowment Fund that has the potential to transfer knowledge and expertise across disciplines and sectors, and create opportunities to work on larger joint projects.¹

Expressions of interest (EoI) for a research project and/or an <u>Aspi Baria PhD Scholarship</u> (\$28,597 p/a) to support a specific research project are being sought. The funding may be allocated to or between research project activities and/or scholarship stipend. Where a PhD scholarship or top up is requested, the EoI must be submitted by an ANU researcher who has authority to recruit and supervise the PhD student and their research.

Funding up to a total of \$190K is available, which may be applied to activities of between six months and eighteen months in length for research projects or three years where the project involves scholarships. The student will be required to be in Australia to be awarded the scholarship given the close collaboration required with Icon Water. Proposals are due close of business 28 September 2021.

ANU and Icon Water value diversity and inclusion and are committed to increasing the participation of women in non-traditional fields. Female researchers as well as researchers from diverse backgrounds, including Aboriginal and Torres Straight Islanders, people with disabilities, people from culturally diverse backgrounds and all ages are encouraged to apply.

The 2021 call will focus on the priorities relevant to the strategic objectives of Icon Water, in brief:

Icon Water is an unlisted public company owned by the ACT Government, which undertakes two primary activities: delivery of water, sewerage and associated services; and managing the investment in the energy businesses, Evoenergy and ActewAGL.

Icon Water objectives under the Territory-owned Corporation Act 1990 (ACT) are to:

- 1. Operate at least as efficiently as any comparable business
- 2. Maximise sustainable return
- 3. Show a sense of social responsibility
- 4. Operate in accordance with the object of ecologically sustainable development

The following table summarises 12 research project ideas with high potential for industry use proposed by Icon Water to inform potential researcher project bids. Further detail can be provided upon request (innovation@anu.edu.au). Project ideas outside of these and still relevant to Icon Water's strategic objectives are also welcomed so we encourage you to put your thinking hats on.

¹ The Icon Water and ActewAGL Perpetual Endowment Fund was established in 2009 with a donation of one million dollars each from Icon Water and ActewAGL. The Endowment Fund is ANU owned, and distributed under ANU delegation, and therefore cannot count as an industry cash contribution in external funding proposals.

Image	Title (hyperlinked to section)	Idea
	Can we attribute and minimise error in our ACT source water models?	To understand the cause/s of the reduced streamflow trend over the last decade in particular to enable Icon Water to estimate when the trend might cease (or if it will accelerate).
	Loop beer - would you drink an IPA made from purified recycled water?	Gaining a local ACT context understanding of community acceptance and critical barriers to drinking purified recycled water and looking at the efficacy of community education on acceptability.
	Thrifty micro hydro	To investigate whether it is feasible to run pumps as micro hydro generators within our treated water network.
	Playing with fire but not getting burnt	Icon Water, and the water industry more broadly, need standards on bushfire asset protection for water utility assets.
	Carbon sink or swim	Prove the worth of biochar as a carbon negative product (carbon sink). This research project will undertake local trials of biochar material to demonstrate benefits and inform Icon Water replacement of the existing biosolids heat treatment process in ~2030. Also, extrapolate opportunities more broadly to inform biosolids treatment decisions in the context of a net-zero emission water utility.
	Two birds with one stone: replacing two chemicals with efficient UV light?	Replace the existing chlorine and sulphur dioxide chemical dosing systems for wastewater disinfection at LMWQCC with LED UV.

Help our local farmers continue using the AgriAsh liming product	Study how can we reduce the impacts of groundwater, with naturally elevated concentrations of lead, arsenic, zinc, cadmium, copper, etc associated with some locations with fingers of mineralisation or skarns from the Ainslie volcanics geology (Watson, Dickson, Deakin), entering our sewer network via inflow and infiltration and jeopardising ongoing use of our AgriAsh liming product on farms across the region.
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	Getting those good green-blue city ideas implemented in the ACT	Identify specific practical changes needed in the ACT context to realise the mechanisms and benefits of the Water Services Association of Australia 'blue + green = liveability' paper and Productivity Commission's 'Integrated urban water management - why a good idea seems hard to implement' research paper.
YOU GOTTA NOURISH TO FLOURISH	You gotta nourish to flourish	How can we clearly define and permit wise water use, valuing our resource and using it appropriately for life to flourish in our city; it isn't as simple as using less which can actually harm our economy, environment and community.
	Customer Value Driving Utility Services and Prices	Outline how pricing regulators are considering customer research (e.g. willingness to pay, behavioural insights studies, etc) in setting water utility costs to deliver overall customer value.
	Yikes, this pipe is rooted!	Determine if there is any relationship between sewer pipe blockages/bursts and tree species data (provided by ACT Government and Balmoral Group) to inform ACT Tree Replacement Program (including species selection, methodology and location) and Icon Water Pipe Replacement Program (including methodology and timing) to protect utility and living infrastructure respectively.
CO WILLIAM	Let the Artificial Eyes Watch our Assets	To explore key opportunities, challenges in Al- Driven Asset Management at Icon Water and address those challenges by developing research and building automated tools and data pipelines that help Icon Water in key service areas such as delivery of clean water and safe disposal of the sewer.

Stage One: Call for Eol

The purpose of the Stage One EoI is to seek information that will allow the Endowment Fund Committee (comprising ANU and Icon Water staff) to assess alignment with strategic priorities of ANU and Icon Water, and to identify project champions within Icon Water to support and enhance design and delivery of the project outcomes.

If you would like to apply, please complete the attached EoI form and return to: innovation@anu.edu.au

Proposals will be assessed on the significance and innovation of the research approach, the potential for the partnership based on alignment with strategic objectives and the impact that the research and partnership will generate. The Committee will select up to three EoI to progress to a Stage Two application due 15 November.

The submission deadline is close of business 28 September 2021.

A second stage will invite greater detail, including the approach and methodology, a project plan to be developed in consultation with your Icon Water project champion, and budget to be submitted with the approval of your local delegate. The Endowment will likely be awarded prior to the end of year.

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submit to innovation@anu.edu.au by close of business 28 September 2021

Section 1: Summary				
Q1. First Named Investigator				
Q2. College and School				
Q3. Project Title				
Section 2: Project Detail				
Q4. Please give a summary of your pro	oposed project (approx. 250 words)			
Q5. Please elaborate on the significan	ce and innovation of your approach (approx. 250 words)			

Section 3. Partnership Potential
Q6. Please identify the relevance of your proposal to Icon Water strategic objectives and challenges (approx. 250 words)
Q7. Please identify how Icon Water could contribute to the delivery of your intended outcomes (approx. 100 words)
Section 4. Communication
Q8. Please describe how you intend to have impact and share information regarding project outcomes (approx. 100 words)

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