
Post graduate research in Climate Resilient Water: Domestic students

We are seeking prospective domestic students (Australian or New Zealand citizens or holders of Australian permanent resident visas) to undertake full-time PhD study at the Institute for Sustainable Future (University of Technology Sydney). Successful applicants would receive a UTS scholarship worth \$39,000 per year, with the potential of a top-up scholarship, estimated at \$15,000 per year from the [Climate-Resilient Water](#) industry training centre. Both scholarships are tax free.

Topics of interest include:

1. **Bridging the climate adaptation gap in water planning:** Investigate how new tools, approaches or governance might shift water planning to account for uncertainty and manage climate risk, taking into consideration the full range of past and future climate information/ scenarios are underused in water planning decisions.
2. **A multi-criteria adaptive planning approach for wastewater treatment plants under multi-dimensional uncertainty:** Investigate governance and decision-making processes within a water utility to improve long-term investment decisions for wastewater infrastructure under conditions of increasing uncertainty and regulatory pricing oversight. *This student is expected to be based on the Sunshine Coast to work with UnityWater.*
3. **Climate-resilient planning for coastal assets:** Investigate how to improve long-term investment planning for coastal water/wastewater infrastructure in the face of climate uncertainty, such as erosion, sea-level rise, and storm surges. *This student is expected to be based on the Sunshine Coast to work with UnityWater.*
4. **Operationalising future scenarios:** Investigate how to better bridge the gap between catchment scenario development and planning integration. How can catchment scenarios help define and assess novel and emerging risk from catchment to community across utility business process (with a focus on public health outcomes)? *This student is expected to be based in Sydney to will work with WaterNSW.*
5. **Prioritising water resilience risks:** Explore how to improve risk prioritisation of climate risks, through stratifying and prioritising risks beyond using multi-dimensional criteria beyond likelihood and consequence. *This student is expected to be based in Sydney to work with the NSW Government.*
6. **Communicating uncertainty and risk** - Design communication and visualisation tools that convey uncertainty in forecasts is a major challenge without reducing confidence or clarity. How does risk framing influence trust, behaviour and acceptance of restrictions or major supply investment decisions?
7. **Quantifying the climate change induced physical, transitional and broader compounding risks on built and natural catchment assets:** Develop a robust analytical process for exploring and understanding the interactions and how to best quantify, measure and prioritise these impacts and risks.
8. **Integrating Resilience Metrics into Water Risk Assessment and Regulation:** Explore how resilience can be quantified and embedded into regulatory, assurance and risk frameworks.
9. **Social tolerance for restrictions under deep drought:** Explore the value of not running out of water and the social tolerance and economic impacts of severe water restrictions and potential trade-offs.

10. **Non-residential Water Demand Forecasting under Climate and Economic Change:** Explore how to incorporate the new data (benchmarking, smart metering, growth projections) and climate change impacts into non-residential demand forecasting?
11. **Social licence of using non-residential digital data for water efficiency:** Explore what can be done with non-residential meter data and the governance implications.

Applicants should follow the application process outlined here:

<https://www.uts.edu.au/research/centres/isf/learning/hdr-program/how-apply> .

Pre-approval of applications close 14 August 2026.

Please complete the EOI form with more details about your research interests and proposed topic, together with your CV and outlining any previous research and publications. **Please submit these documents to ISF-waterphd@uts.edu.au before 24th July for an initial assessment by our water team.** We will then reach out to promising applicants to advise on the development of a fuller proposal for submission to the ISF domestic application round (14 August).

ISF's award-winning graduate research program for Masters and Doctoral research empowers students to create a better future in their chosen field. ISF's transdisciplinary approach encourages students to take a holistic view of sustainability, knowing that significant positive change often relies on political, organisational, cultural and systemic factors as well as technical innovation.

