

Up close and
personal with

Laura McGrath

Hydrogeologist

Environment & Planning



TOBIN
CONSULTING ENGINEERS

About Laura

Laura is a professional hydrogeologist with seven years experience.

She has a B.Sc in Earth and Ocean Science and an M.Sc in Hydrogeology. Her experience to date includes working in contaminated land, site investigation, flood prevention, road infrastructure and predominantly in water resources. She has professionally worked in Ireland but her studies took her to Scotland and Malawi.



Why did you want to go into this field?

I didn't know for sure what I wanted to do when in University. I was initially enrolled in an undenominated science course but realised I didn't enjoy the same subjects that I liked in secondary school, but did enjoy the natural sciences which I didn't have a background in. I was lucky enough to be able to choose the earth science subjects which lead to studying hydrology and hydrogeology. It was that lucky exposure to the topic that made me decide to change my degree to denominated Earth and Ocean Science (EOS) so I could focus entirely on the earth sciences and make a career out of it.

What is the most interesting project you've worked on?

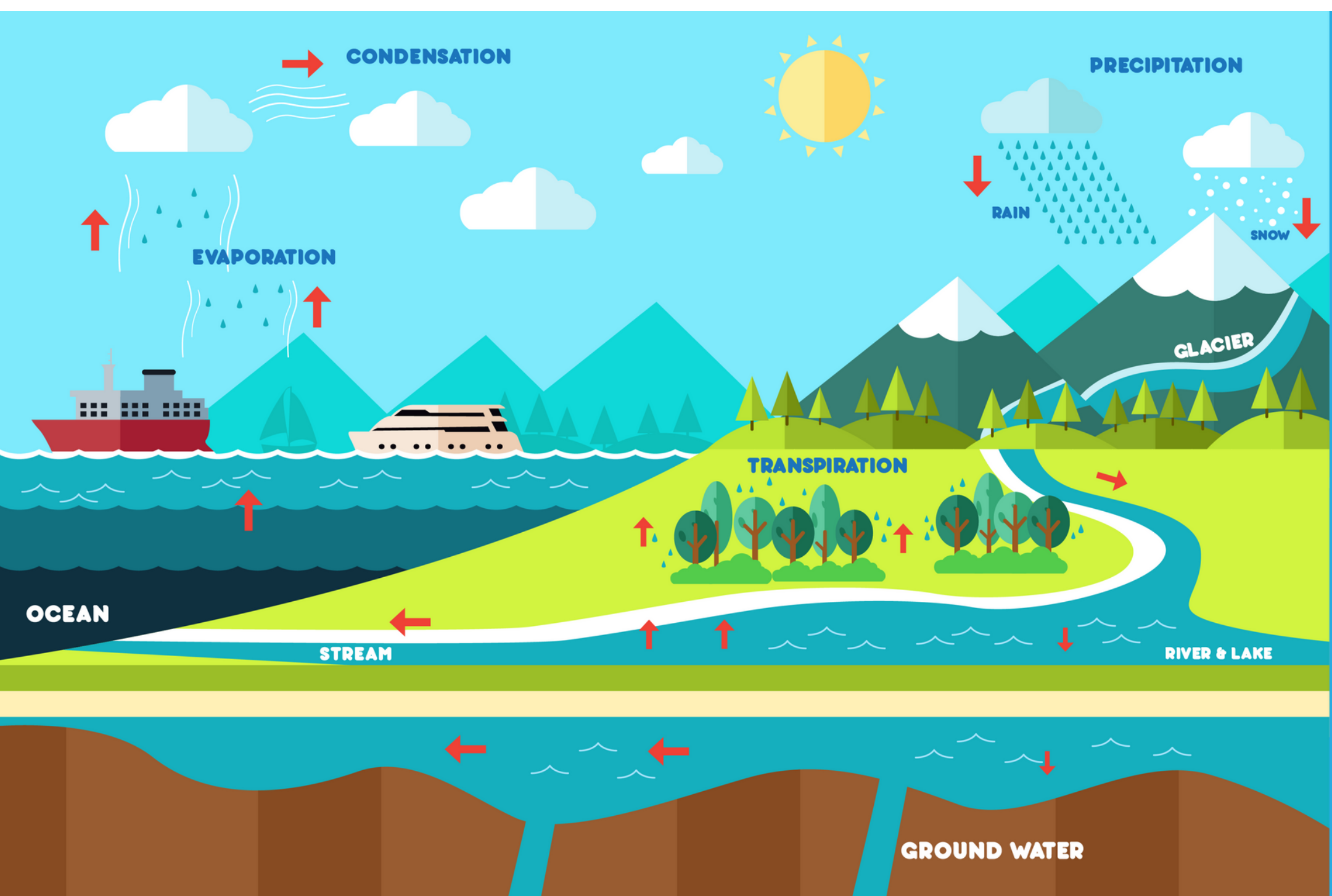
I've worked on a large variety of projects so far. In terms of a contaminated land-related project, the one that sticks in my head is the Arklow Wastewater Treatment Plant.

At the time, that site had soils and groundwater contaminated with heavy metals, hydrocarbons, gun cotton (a mild explosive), phosphogypsum (which is radioactive), and asbestos and was used as a dumping ground for waste. A highly detailed study was needed to properly understand the historical activities and how the site became so contaminated.

This included reviewing historical maps, researching the historical activities and the industrial by-products produced, supervising a detailed site investigation, analysing soil and groundwater data and putting all the puzzle pieces together to get a clear understanding of the baseline environment. I'll never forget supervising the site investigation works while wearing a head-to-toe hazmat suit, a valved facemask and steel-toed wellies instead of the regular steel-toed boots to avoid asbestos fibres sticking to the laces!



What piece of advice would you give to your younger self?




Don't let the stress of work get on top of you. Experience and knowledge will come in time but for the moment, you'll work better and improve faster if you relax and reach out for help when needed.

People enjoy helping others.



What is one thing that you wish people knew about your job?

Groundwater is every bit as important as rivers, lakes and the oceans. The only difference is you can't see it, but it is a major source for our drinking water supplies. Hydrogeologists want to protect it and manage it in a sustainable manner so that it remains a valued asset. This is more important than ever now with changing weather patterns and droughts putting stress on our existing supplies.



What's one thing that surprised you
about your current role?

When I first started I was working in a stereotypical male-dominated engineering area and would sometimes feel like I wasn't being taken seriously as a young, inexperienced female when working on site. However, perspectives appear to have changed over the years and the gender balance within hydrogeology and the environmental sciences, in general, is noticeably improving. There are more and more women in leading roles which is more obvious in the workplace and at continuous professional development events. It's a great change to witness.

What advice would you give someone who's thinking of pursuing science as a career goal?



Absolutely go for it. There is massive variety in the area, massive variety within individual topics and plenty of opportunities to change career path. A lot of people would work in various roles throughout their career and even within their own jobs, for example research, teaching, outreach and public engagement, consultation, policy making and enforcement, client engagement, project management etc. just to name a few. Science is not limited to sitting in a lab or at a computer all day and a career in science is not necessarily limited to just science.