



Margot Mason

Project Engineer | Environmental Engineering

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Margot is a Project Engineer at the UNSW Water Research Laboratory. She completed a Bachelor of Science in Hydrologic Sciences and Policy at the University of California Santa Barbara in 2020, and a Masters of Water Engineering at UNSW in 2022. This has given her a strong background in ecology and environmental processes, in addition to technical engineering skills. As part of her studies she completed a Master's thesis on hydrologic modelling of upland swamps and the impact of longwall mining.

She now works primarily in numerical modelling using the RMA modelling suite, working on projects such as modelling pollutant transport in 11 NSW estuaries, salinity dynamics of nine NSW estuaries under climate change and modelling erosion in the Lake Illawarra Entrance channel. She has also worked in Australian Carbon Markets and has remote sensing and drone experience.

Qualifications

MEngSci (Water Engineering), UNSW, 2022

BS with Highest Honours (Hydrological Sciences and Policy), UC Santa Barbara, 2020

Professional history

2022-Current: Project Engineer, UNSW WRL

2021-2022: Geospatial Scientist, Australian Integrated Carbon

2018-2020: Undergraduate Researcher, UCSB RiVRLab

Expertise

- Numerical modelling
- Environmental engineering
- Estuarine hydrodynamics and dispersion
- Saline intrusion
- Remote sensing and GIS
- Wetland processes
- Restoration
- Synthetic turf
- Blue carbon
- Groundwater

Summary of relevant experience

Numerical modelling

Estuarine hydrodynamic and water quality modelling in RMA modelling suite

Sewage overflow impacts on NSW oyster harvest areas

Theoretical dispersion for saline intrusion

Salinity dynamics of nine NSW estuaries under climate change

Modelling erosion in Lake Illawarra Entrance Channel

Remote Sensing

Drone photogrammetry

Wetland and riparian hydrology and restoration

Upland peat swamps hydrologic monitoring and modelling

Santa Clara River Cienega monitoring and restoration

Literature review

Hydrologic impacts of synthetic turf in NSW