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, 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
- Dispersion
- 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
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