



EMILY BURNS

MARINE AND FRESHWATER SCIENTIST

Emily has a strong background in marine and coastal science, specifically, the impacts of anthropogenic pressures and utilisation of natural capital on marine and intertidal ecosystems with a solid base in ocean chemistry, ecology, and physical processes. Emily has worked in the resource management and regulation sector in the UK, with a focus on freshwater quality, management, and pollution response, as well as policy compliance and planning. Emily brings a strong catchment-wide analytic approach to issues threatening our waterbodies and a solution-based focus to nutrient management on farms and wastewater regulation.

CONTACT

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QUALIFICATIONS & POSITIONS HELD

MASTER OF SCIENCE WITH DISTINCTION

HERIOT WATT UNIVERSITY 2018

Marine Science

BACHELOR OF SCIENCE

HERIOT WATT UNIVERSITY 2017

Marine Biology

TECHNICAL LEAD FOR NORFOLK

THE ENVIRONMENT AGENCY UK

Water Resources

FISHERIES RESEARCH SCIENTIST

FISHERIES SOCIETY OF THE BRITISH ISLES

2016

National Internship Award

EXPERTISE

- Excellent communication skills and strong ability to build relationships
- Ability to apply scientific theory and knowledge to inform solutions for challenging resource management issues
- Strong research and analytical skills
- Successful project management from idea development through to completion
- Perceptive with an eye for accuracy
- Methodical and versatile with a professional approach

MARINE AND FRESHWATER SCIENTIST

THE CATALYST GROUP

January 2022 – present

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ENVIRONMENT OFFICER

THE ENVIRONMENT AGENCY

Norfolk Land and Water Team

2019 - 2021

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SAMPLE PROJECTS

PROVISION OF TECHNICAL ADVICE

VARIOUS CLIENTS ONGOING

Provide advice on effects on marine ecosystems across a number of infrastructure projects including Whanganui Port redevelopment and Port of Tauranga expansion.

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REQUIREMENTS FOR INLAND WETLANDS UNDER THE NATIONAL POLICY STATEMENT FOR FRESHWATER MANAGEMENT 2020

HORIZONS REGIONAL COUNCIL ONGOING

Undertook a gap analysis and evaluation of policy requirements to inform the development of a region-wide policy response and implementation plan including the development of a monitoring framework, recommendations for numeric attributes for specified values, and prioritised implementation of mapping requirements.

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WATER QUALITY MONITORING PROJECT

THE ENVIRONMENT AGENCY UK 2019-2021

Management of a monitoring programme to assess changes in physico – chemical parameters associated with seasonal variation in Norfolk rivers and predicted effects on biota. Assessed data produced for a reduction in available oxygen in order to pre-empt a response in terms of aeration.

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RESPONSE MANAGEMENT TO LOW DISSOLVED OXYGEN IN THE NORFOLK BROADS

THE INTERNAL DRAINAGE BOARD 2019-2020

Undertook a review of incident management with regards to dissolved oxygen levels in the Norfolk broads. This was followed by production of a report on dissolved oxygen affected by internal drainage board operations with respect to flood flows and how to affect an efficient response.

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REGULATION OF WATER RESOURCES WITHIN PRIORITY CATCHMENTS IN NORFOLK DURING PROLONGED DRY WEATHER STATUS

THE ENVIRONMENT AGENCY UK 2019-2021

Analysed hydrological data to determine priority catchments in Norfolk with regards to available groundwater and surface water. This data was then used to instate an abstraction compliance regime targeting priority catchments focusing on agricultural water use in the region.

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