

**The University of Waikato  
Te Whare Wānanga o Waikato**

**POSITION DESCRIPTION**

**Postdoctoral Fellow**

**Vision**

We will

- deliver a world-class education and research portfolio
- provide a full and dynamic university experience which is distinctive in character
- pursue strong international linkages to advance knowledge

The over-arching themes of this *Vision* are:

- Excellence
- Distinctiveness
- International Connectedness

**Values**

Ko te mana o Te Whare Wānanga o Waikato ka herea ki tō tātou:

- Tū ngātahi me te Māori
- Mahi pono
- Whakanui i ngā huarahi hou
- Whakarewa i te hiringa i te mahara

The University of Waikato places a high value on:

- Partnership with Māori
- Acting with integrity
- Celebrating diversity
- Promoting creativity

**1. GENERAL**

The Division of Health, Engineering, Computing and Science (HECS) comprises the Schools of Health; Engineering; Computing and Mathematical Sciences, and Science. The Division also has several research units, including the Environmental Research Institute and commercial/equipment units which embody staff and research activities.

The School of Science provides teaching and research in several academic programmes including: Aquaculture, Biomedical Science, Chemistry, Earth Sciences, Ecology and Biodiversity, Environmental Sciences, and Molecular and Cellular Biology. The School offers a range of qualifications at undergraduate and postgraduate levels which are delivered on both the University of Waikato Hamilton campus and the Tauranga campus.

## **2. POSITION PURPOSE**

The Postdoctoral Fellow is a postdoctoral academic appointment resourced by a contract to the New Zealand Agricultural Greenhouse Gas Centre: "Confirming CO<sub>2</sub> capture by enhanced rock weathering at paddock scales under grazed pastures".

The Fellow will have a strong interest in greenhouse gas measurement at hectare scales from agricultural systems. Background in enhanced rock weathering also beneficial. They will be expected to participate in applicable duties within the School/Faculty and potentially contribute to teaching where appropriate.

This position is within an established research team with expertise in eddy covariance approaches for farm scale assessments of greenhouse emissions. The main duties of this postdoctoral role will be to assist with running eddy covariance towers over field trial of grazed pasture with applied rock, calculating carbon balances and nitrous oxide fluxes, producing papers and supporting reporting responsibilities. Contribution to some teaching.

## **3. ACCOUNTABILITY**

The Postdoctoral Fellow is responsible to - School of Science

## **4. FUNCTIONAL RELATIONSHIPS:**

Head/Dean  
Other School/Faculty staff  
Research and Enterprise Office  
Students  
External research organisations

## **5. KEY TASKS**

Having regard to the aims and objectives and the long-term strategic goals of the School/Faculty, the Division and the University the primary objectives of the Postdoctoral Fellow include:

- Conduct high quality research related to measuring the potential for enhanced rock weathering capture carbon dioxide at paddock/annual scales and contribute to knowledge development through scholarship, publication and conference and public presentations. The main measurement tool is eddy covariance.
- Participate as a new scholar in Te Aka Mātuatua - School of Science
- Collaborate with academic colleagues and relevant stakeholders.
- Contribute to teaching in undergraduate and postgraduate programmes where appropriate.
- Participate in the maintenance of a safe and healthy work environment for self and others including students. Comply with and undertake responsibilities set out in the University's Health and Safety Policy.
- Any other duties as required that are consistent with the position held, other than in exceptional circumstances such as rehabilitation after injury or sickness.

## **6. PERFORMANCE STANDARDS**

The Postdoctoral Fellow will be performing satisfactorily when:

- Research is carried out as planned, and project milestones are achieved.
- Expertise in the research area is disseminated and available to University staff, students and stakeholders as arranged.
- Contributions made to administration and other School/Faculty activities demonstrate initiative, engagement and collegiality.
- Relevant collaborations, partnerships and relationships are developed.
- Safe and healthy work practices are followed. University policies, procedures, relevant work standards and statutory obligations are complied with.

## **PERSON SPECIFICATION**

### **EDUCATIONAL QUALIFICATIONS**

- PhD in a relevant field, e.g., ecosystem-scale greenhouse gas or water flux measurements, enhanced rock weathering, agricultural systems, carbon cycling.

### **TRAINING, SKILLS AND KNOWLEDGE**

- An established record of research and publishing and an active programme of scholarship.
- Research skills in micrometeorological techniques for measuring greenhouse gas emissions, manipulating large datasets using coding platforms (e.g., MatLab, R studio, Python), experience in field work, producing papers and reporting responsibilities.
- Broad and in-depth knowledge of carbon cycling including in natural and/or agricultural ecosystems including enhanced rock weathering.
- A proven ability to communicate and work effectively with internal and external stakeholders.
- Ability to apply information and communication technologies to achieve desired outcomes and maintain and update those skills.
- An interest in contributing to teaching.

### **PERSONAL QUALITIES**

- Proven ability to maintain a professional approach while under pressure.
- Self-motivation and a pro-active approach.
- Willingness to contribute and operate as part of a team.
- Commitment to a culture of openness, flexibility and cooperation to achieve excellence in academic programmes, research and service.
- A commitment to equal opportunity and to the University's partnership with Māori as intended by the Treaty of Waitangi.

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